ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS

Wisconsin Department of Transportation
DT2094 8/2005

Project ID	Funding Source	Federal Number
2290-06-03	☐ State Only ☐ Federal X State and Federal	
Project Name (Highway, Airport, Rail Line) STH 38 Corridor Study		Project Termini CTH K (Racine County) to Oakwood Road (Milwaukee County)
Section	County Racine and Milwaukee	Estimated Project Cost (Include R/W Acquisition) $63 Million (2006 dollars)

It is determined, after review of the comments from the public, and coordination with other agencies, that this action would not significantly affect the quality of the human environment. This document is a

☐ Finding of No Significant Impact (FONSI).

X Environmental Assessment (EA) No Significant Impacts Indicated by Initial Assessment

☐ Environmental Assessment (EA) EIS Required

☐ Environmental Report (2-ER)

(Signature) (Date)	(Signature) (Date)
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(Signature) (Date) ☐ Region, ☐ Aeronautics, ☐ Transit, Local Roads, Rails & Harbors	(Signature) (Date) X Region, ☐ Aeronautics, ☐ Transit, Local Roads, Rails & Harbors
(Director, Bureau of Equity & Environmental Services) (Date)	(Director, Bureau of Equity & Environmental Services) (Date)
(☐FHWA, ☐ FAA, ☐ FTA, ☐ FRA) (Date)	(X FHWA, ☐ FAA, ☐ FTA, ☐ FRA) (Date)

1. Description of Proposed Action (Attach project location map and other appropriate graphics).

The Wisconsin Department of Transportation (WisDOT) in consultation with the Federal Highway Administration (FHWA) is proposing capacity and other safety related improvements on STH 38 in Racine and Milwaukee Counties. The STH 38 project corridor extends from CTH K in Racine County to Oakwood Road in Milwaukee County, a distance of approximately 9 miles/14 km (see **Exhibit 1**).

The proposed action/Preferred Alternative is to widen STH 38 from two to four lanes between the project termini (Exhibits 2 and 3). From the STH 38/CTH K intersection to Dunkelow Road the widening would occur on the existing STH 38 alignment. From Dunkelow Road to Five Mile Road the four-lane STH 38 would follow a new alignment along the Union Pacific Railroad corridor. STH 38 would then roughly follow the Five Mile Road alignment between the railroad corridor and CTH H, a distance of approximately 2 miles (3.2 kilometers). CTH H would be widened to four lanes from Five Mile Road and Six Mile Road to carry STH 38. Between Six Mile Road and the north project terminus STH 38 would be widened on its existing alignment. The proposed action/Preferred Alternative is described in more detail under item 3, summary of alternatives considered.

2. Purpose and need of proposed action. Include description of existing facilities, abutting facilities, and how the action links into the overall transportation system. When appropriate, show that commitment for future work is not being made without evaluation, and that viable alternatives in a larger framework are not being unduly foreclosed.

Purpose

The purpose of the STH 38 Corridor Study is to develop a long-range improvement plan for addressing existing and future traffic demand, traffic flow and safety concerns in the STH 38 corridor, and that minimizes environmental impacts to the extent possible and practicable. The plan will also assist local officials in making future land use/development decisions in the STH 38 corridor and will preserve the land needed for future transportation improvements. Key objectives of the proposed improvements include following:

- Provide a safe and efficient highway that serves future traffic demand generated by existing and planned development within the STH 38 corridor and the surrounding region.
- Improve operational characteristics and traffic flow commensurate with an arterial highway.
- Improve safety by reducing conflicts between through and local traffic and providing a highway facility that meets current design standards.

Need

The need for proposed improvements is demonstrated through a combination of factors that include regional/local transportation and land use planning, system linkage and route importance, existing highway deficiencies, traffic demand, safety concerns, corridor preservation, and environmental aspects.

Transportation and Land Use Planning

STH 38 is one of several north-south and east-west highways in northeastern Racine County recommended for future capacity expansion in the adopted *2020 Regional Transportation System Plan for Southeastern Wisconsin* prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC Planning Report Number 46, December 1997).

At the regional level, the need for additional capacity on STH 38 as well as other existing highways in northern Racine County and southern Milwaukee County is based on elimination of the “Lake Arterial Extension” that was proposed by SEWRPC and local municipalities in the early 1990’s. The Lake Arterial Extension would have provided a new multi-lane arterial highway to serve traffic demand between the Milwaukee, Racine and Kenosha urbanized areas. The engineering/environmental study conducted by WisDOT for the Lake Arterial Extension ultimately resulted in eliminating this new north-south arterial from further consideration due to lack of support by some local governments and the public. Absent the previously proposed Lake Arterial Extension, other capacity improvement projects were subsequently placed in the *2020 Regional Transportation System Plan* to address forecast traffic demand and air quality conformity. These include STH 38 (CTH K to Oakwood Road), STH 32 (STH 31 to STH 100) and STH 31 (Four Mile Road to STH 32).

The proposed STH 38 project is presently included in the 2005-2007 Transportation Improvement Program for Southeastern Wisconsin under general TIP #18 that covers preliminary engineering on the rehabilitation of State Trunk Highways in southeastern Wisconsin. WisDOT has requested that SEWRPC include the STH 38 Corridor Study as a specific highway preservation project in the next TIP Amendment.

At the local level, the Village of Caledonia has prepared *A Land Use Plan Implementation Strategy for the Rural Area of the Town of Caledonia Racine County, Wisconsin* (SEWRPC Community Assistance Planning Report Number 272, March 2004) under Wisconsin's General Charter Law, Section 62.23, Wisconsin Statutes. The Town of Caledonia undertook a town wide effort in 2002 to detail the land use plan adopted in 1996. The Town was divided into several neighborhoods. The Town Board requested that the Southeastern Wisconsin Regional Planning Commission (SEWRPC) assist the Town in detailing the land use plan and developing plan implementation strategies for the area designated as "Agricultural" on the plan, which is referred to as the rural, or R-1, area. The R-1 area encompasses 9,724 acres (3,935 hectares), or about 15 square miles (39 square kilometers). This report incorporates the 2020 Regional Transportation System Plan as its transportation element. Currently, the Village of Caledonia is part of a multi-jurisdictional grant application with Racine County and all of the other local governments in the County for funding from the Wisconsin Department of Administration for preparing comprehensive plan, in accordance with Comprehensive Planning Law 66.1001. If the Preferred Alternative is selected at the conclusion of the STH 38 Corridor Study, the Village will incorporate the alternative into the plan's transportation element and will begin preserving the corridor for future transportation improvements. Village representatives also participated in the STH 38 Project Advisory Committee meetings and provided input on existing and planned land use relative to development and refinement of the alternatives.

System Linkage and Route Importance

STH 38 is classified as a minor arterial highway intended to provide moderate through traffic mobility and to funnel traffic from local roads and traffic generators to higher type highways such as principal arterials and freeways. As a north-south arterial highway, STH 38 serves as the main stem for a network of east-west roadways that collect and distribute traffic in eastern Racine County and southeastern Milwaukee County. In the study area, STH 38 serves the City of Racine, Village of Caledonia, the unincorporated communities of Franksville and Husher, and the City of Oak Creek. Higher volume local roads that intersect existing STH 38 include CTH K, Four Mile Road, Five Mile Road, Six Mile Road, Seven Mile Road and Oakwood Road.

Existing Highway Characteristics and Deficiencies

Existing STH 38 generally consists of a 2-lane rural roadway with 12-foot (4-meter) wide driving lanes and 8-foot (2-meter) wide shoulders with 3 feet (1 meter) paved. The posted speed is 55 mph (90 km/h) except in the vicinity of Nicholson Road where it is reduced to 40 mph (65 km/h) and in the Caddy Lane to Oakwood Road segment where it is reduced to 45 mph (70 km/h). An advisory speed of 35 mph (55 km/h) is posted on the southbound STH 38 curve at CTH G and on the northbound and southbound STH 38 curves at CTH H.

There are 7 horizontal curves along the corridor that are substandard for the posted speed limit (do not meet minimum 1,065 foot/325 meter curve radius for posted speed). There are also 47 locations where the vertical profile is substandard (do not meet minimum stopping sight distance of 495 feet/151 meters for posted speed). There are 21 stop-sign controlled side road intersections, all of which lack adequate turning capacity for one or more turning movements. There are also 2 right-angle corners on existing STH 38, one at the west end of the STH 38 east-west leg (STH 38/CTH H/Six Mile Road intersection) and one at the east end (STH 38/River Road/Six Mile Road intersection). There is a total of approximately 189 access points (driveways, side roads, field entrances) along the existing highway for an average of approximately 19 access points per mile, nearly double the 10 per mile recommended in WisDOT's design guidelines.

Traffic Demand

Existing and future traffic (Design Year 2035) is summarized in Table 1. Annual Average Daily Traffic (AADT) reflects average travel conditions during the year rather than daily or seasonal fluctuations. Existing traffic volumes were derived from WisDOT's year 2002 automatic count data. Forecast volumes, developed by WisDOT's Bureau of State Highway Programs in Madison, were derived from historic counts and are consistent with SEWRPC's forecasts that reflect existing and planned land use and development trends in the STH 38 corridor.

Existing traffic in the STH 38 corridor ranges from 6,500 to 11,300 vehicles per day (vpd) and is expected to reach a range of 12,775 to 22,650 vpd in Design Year 2035, a doubling of traffic in all but two segments. Approximately 8.6% of the total AADT is truck traffic. WisDOT design guidelines and the Transportation Research Board's *Highway Capacity Manual HCM2000* indicate 15,000 AADT as the threshold volume that can be safely handled at an acceptable service level on a 2-lane rural/suburban highway that meets applicable/current design standards (existing STH 38 does not meet current design standards). In Design Year 2035, all but two segments of the STH 38 corridor will have traffic volumes above this threshold.

Table 1—STH 38 Traffic Summary

Roadway Segment	Existing Traffic 2002 AADT	Future Traffic Design Year 2035 AADT	Percent Increase (2002-2035)
CTH K to Four Mile Road	6,500	12,775	97
Four Mile Road to Six Mile Road	6,600	13,150	99
Six Mile Road/STH 38 intersection to CTH H (east-west leg)	11,300	19,975	77
CTH H/STH 38 intersection to Seven Mile Road	11,200	22,650	102
Seven Mile Road to Oakwood Road	8,500	18,250	115

Safety

Crash data for the STH 38 corridor for 2002 through 2004 is summarized in Table 2. There were a total of 165 crashes (excluding deer hits) during the 3-year period. The majority of the crashes involved angle hits (39% of the total), the second highest category was run-off-the-road collisions with fixed objects (34% of the total), and the third highest category was rear-end collisions (15% of the total). These types of crashes are indicative of congestion at spot locations, lack of adequate turn lanes at intersections, and conflicts between through traffic and turning traffic.

Table 2—STH 38 Crash Data (2002-2004)[1]

Year	Crash Severity			
	Property Damage	Personal Injury	Fatality	Totals
2002	30	34	0	64
2003	33	25	1	59
2004	21	20	1	42
Totals	84	79	2	165

Note:
1. WisDOT's database includes those crashes involving $1,000 or more damage to any one vehicle, an injury or fatality, and $200 or more damage to government property such stop signs and guardrail.

Table 3 summarizes STH 38 roadway mainline crash rates compared to statewide average crash rates for similar roadways. Crash rates above the statewide average are shown in bold. As noted, crash rates in the STH 38 corridor were above statewide average rates during the three-year period.

Table 3—STH 38 Roadway Mainline Crash Rates[1]

STH 38 Segment	Year	STH 38 Crash Rates	Statewide Average Crash Rates[2]
CTH K to Linwood Road	2002	**231**	106
	2003	**154**	117
	2004	**158**	121
Linwood Road to Six and a Half Mile Road	2002	**134**	106
	2003	**271**	117
	2004	**137**	121
Six and a Half Mile Road to Oakwood Road	2002	**329**	106
	2003	**212**	117
	2004	**123**	121

Notes:
1. Crash rates are expressed as crashes per 100 million vehicle miles traveled.
2. Statewide average crash rates for rural STH, excluding deer crashes.

Crashes at the STH 38 intersections with CTH H, CTH G, Four Mile Road and Seven Mile Road accounted for 59% of the total intersection crashes in the STH 38 corridor. Intersection crashes are those that occurred within 300 feet (91 meters) along each approach leg as measured from the center of the intersection. Average intersection crash rates (2002 through 2004) are listed below. Intersection crash rates reflect the number of crashes per one million vehicles entering the intersection. WisDOT uses an intersection crash rate of 1.0 or higher as the threshold for considering improvements.

- STH 38/CTH G—1.5
- STH 38/CTH H—1.3
- STH 38/Four Mile Road—2.0
- STH 38/Five Mile Road—1.9
- STH 38/Seven Mile Road—1.5
- STH 38/Caddy Lane—0.8

Corridor Preservation

Based on current funding for WisDOT's statewide transportation program, the proposed STH 38 improvements are not expected to be constructed within the next 10 years. In the meantime, a long-range corridor preservation plan is needed to ensure compatibility between future transportation needs and planned community development. The STH 38 Corridor Study will provide functional plans for the Preferred Alternative that can be used as a blueprint by local governments in making land use and development decisions, and for preserving the land needed for future transportation improvements.

Environmental Aspects

The STH 38 corridor has numerous environmental resources including streams and floodplains, wetlands, environmental corridors, natural areas and the Nicholson Wildlife Refuge. Preserving these resources to the extent possible and practical is an important purpose and need factor that needs to be considered in evaluating the improvement alternatives. For projects affecting resources protected under the Clean Water Act, the project's purpose and need and alternatives must consider the *Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material* administered by the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers. The guidelines state that dredged or fill material should not be discharged into aquatic ecosystems including wetlands, unless it can be demonstrated that there are no practicable alternatives, that such discharge will not have unacceptable adverse impacts, and that all practical measures to minimize adverse effects are undertaken.

Short Term STH 38 Improvements

Short term improvements to STH 38 between CTH K and Oakwood Road will be made in 2008 under Project I.D. 2290-06-00 to address pavement condition, spot intersection safety improvements and to replace two structures. Improvements are summarized as follows:

- Right turn lanes and larger vision corners at Four Mile Road and Five Mile Road.
- Southbound bypass lane on STH 38 at Brook Road.
- CTH G at West River Road will be a signalized intersection with right and left turn lanes.
- Additional signing and shoulder reconstruction at CTH H.
- Improved right turn lane for STH 38 northbound traffic at Elm Road.
- Improvements to the horizontal and vertical alignment at the STH 38/CTH G intersection.
- The existing Box culvert over the tributary to Husher Creek located 1,800 feet (549 meters) east of CTH H will be replaced with another box culvert.
- The existing bridge over Husher Creek located 900 feet (274 meters) south of Seven Mile Road will be replaced with a box culvert.
- Replacing and upgrading existing beam guard, replacing or extending drainage culverts, and regrading steep slopes with possible addition of beam guard.

3. Summary of the alternatives considered and if they are not proposed for adoption, why not. (Identify which, if any, of the alternatives is the preferred alternative.)

No Build Alternative

Under the No Build Alternative, no capacity improvements would be made to existing STH 38. The existing highway would bear future traffic increases with effects on congestion, mobility, operational characteristics and safety. Any future improvements would consist of those that attempt to maintain the current service levels, keep the driving surface in good condition and address safety concerns at spot locations. The No Build Alternative is not a viable alternative for addressing key purpose and need factors (future traffic demand and safety concerns). Further, the No Build Alternative would not be in conformance with the adopted 2020 Regional Transportation System Plan or the 2005-2007 Transportation Improvement Program for Southeastern Wisconsin. The No Build Alternative serves as a baseline for comparison to the Build Alternatives.

Build Alternatives/Preferred Alternative

Several initial build alternatives were considered during the STH 38 Corridor Study. Based on input from the PAC, public, and state and federal review agencies, and engineering and environmental analysis, WisDOT has identified a Preferred Alternative as noted in the following discussions. Information on other alternatives considered and reasons why these were eliminated from further consideration are also provided.

The new roadway for the Preferred Alternative would consist of a transitional urban/rural cross section at the north and south ends of the corridor (Oakwood Road to Caddy Lane and Hoods Creek Road to CTH K) and a rural cross section between Caddy Lane and Hoods Creek Road. The transitional urban/rural cross section would have two 12-foot (3.6-meter) wide driving lanes in each direction separated by a 30-foot (10-meter) wide raised grass median with curb and gutter. The rural cross section would have two 12-foot (3.6-meter) wide driving lanes in each direction separated by a 60-foot (18-meter) wide grass median. Both cross sections would have 10-foot (3-meter) wide outside shoulders with 8 feet (2.4 meters) paved.

North Project Section (Oakwood Road to Six and a Half Mile Road)

The alternatives considered in this project section are oriented to the existing roadway and include widening it west or east to accommodate the new four-lane facility.

The ***Preferred Alternative*** is to widen STH 38 to the west (see **Exhibit 2**). The main advantage of widening west is that there would be fewer residential and business displacements than required for widening east. Development is more intensive on the east side, including the Oakwood Heights and Caddy Lane subdivisions, individual businesses, and the First Baptist Church south of Oakwood Road. Impact comparisons for widening east or west are summarized in Table 4.

Table 4—Impact Summary for Widening East or West (North Project Section)

Impact Categories	Units	Widen East Alternative	Widen West Alternative (Recommended)
Project Length	Miles (km)	2.5 (4 km)	2.5 (4 km)
Right-of-way	Acres (ha)	34.5 (14 ha)	34.5 (14 ha)
Residential Displacements	Number	20	8
Business Displacements	Number	4	1
Wetlands	Acres (ha)	0.54 (0.21 ha)[1]	4.9 (2 ha)
Stream Crossings	Number	2	2
Access Points (Driveways and Side Roads)	Number	34	35
Major Utilities	Number	No impacts to major utilities	1–2 electrical transmission towers displaced

Note:
1. The area east of STH 38 was not field reviewed for wetlands like the Preferred Alternative (widen west). As a result the wetland impacts of widening east may be underestimated.

South Project Section (Six and a Half Mile Road to CTH K)

The build alternatives considered in the south project section are summarized below. Impact comparisons are provided in Table 5.

Railroad Corridor Alternative (Preferred Alternative)

This alternative is illustrated in **Exhibit 3**. It would follow existing STH 38 from the end of the north project section to Six Mile Road. From there it would follow existing CTH H to north of Five Mile Road. The alignment would then be at a new location along the south side of Five Mile Road and west side of Union Pacific Railroad. It would cross the railroad on structure and rejoin existing STH 38 near Hoods Creek Road.

Constructing the new STH 38 roadway on the east side of Union Pacific Railroad was also considered. The alternative was eliminated from further study because it would be located closer to residences on existing STH 38 than the Preferred Alternative on the west side of the railroad. An alignment on the east side of the railroad would also affect an additional 1.7acres (0.7 ha) of wetlands compared to the west side.

CTH H Alternative (eliminated from further consideration)

This alternative is illustrated in **Exhibit 4**. It would follow the existing CTH H corridor south of Six Mile Road to a point north of Adams Road about midway between Four Mile Road and Dunkelow Road. It would then head east to the Union Pacific Railroad where it would pass over the railroad on structure (same location as the Railroad Corridor Alternative). It would then follow the same alignment as the Railroad Corridor Alternative and rejoin existing STH 38 near Hoods Creek Road.

The CTH H Alternative was eliminated from further consideration because its displacements and the number of access points were nearly twice as high as the Preferred Alternative (Railroad Corridor). The CTH H Alternative would have approximately the same wetland acreage impact as the Preferred Alternative (see Table 5 for impact comparisons) but would impact a large wetland connected to the Nicholson Wildlife Refuge that is avoided by the Preferred Alternative.

Existing STH 38/Five Mile Road Alternative (eliminated from further consideration)
This alternative is illustrated in **Exhibit 5**. Like the Preferred Alternative (Railroad Corridor), it would follow the STH 38/CTH H corridor from Six and a Half Mile Road to north of Five Mile Road. It would then be on new location along the south side of Five Mile Road to a point where it would curve southeast across the railroad tracks and then follow the west side of existing STH 38 to the project's south terminus at CTH K. Existing STH 38 would be widened to the west to reduce the number of residential displacements and eliminate a church displacement that would be required by widening to the east.

This alternative was eliminated from further consideration because the number of access points and the number of displacements would be nearly twice as high as those for the Preferred Alternative (Railroad Corridor). See impact comparisons in Table 5. The Village of Caledonia is opposed to widening existing STH 38 south of Six Mile Road.

Table 5—Impact Summary for Alternatives in South Project Section

Impact Categories	Units	Railroad Corridor Alternative (Recommended)	CTH H Alternative	STH 38/Five Mile Road Alternative
Project Length	Miles (km)	5.6 (9)	6.2 (10)	5.9 (9)
Right-of-way	Acres (ha)	180 (73)	179 (72.5)	156 (63)
Residential Displacements	Number	9	18–19	14–16
Business Displacements	Number	0	5	0
Wetlands	Acres (ha)	6.6 (2.7 ha)	6.6 (2.7 ha)	6.6 (2.7 ha)*
Stream Crossings	Number	1	0	1
Access Points	Number	35	64	67
Major Utilities	Number	4-5 electrical transmission towers displaced	4-5 electrical transmission towers displaced	3-5 electrical transmission towers displaced

* The wetland impacts for STH38/Five Mile Road and CTH H Alternatives are based partly on field review and partly on secondary sources. The entire Railroad Corridor Alternative had a preliminary wetland boundary field review.

In summary, the Railroad Corridor Alternative has been identified as the most practicable alternative (Preferred Alternative) that satisfies project purpose and need, balances overall impacts to existing and planned development, minimizes impacts to natural resources, and addresses engineering standards and considerations. Key advantages of the Preferred Alternative include the following:

- It has fewer residential displacements
- It has the same wetland impacts as the other reasonable build alternatives considered.
- The number of access points that would need to be retained is substantially less than for the CTH H or Existing STH 38/Five Mile Road Alternatives
- The Village of Caledonia is opposed to widening existing STH 38 south of Six Mile Road.

Other Alternatives Considered

Other alternatives that were considered but not retained as possible reasonable alternatives are summarized as follows:

Improve Existing STH 38 with No Off-Alignment Segments

This alternative would widen existing STH 38 entirely on the existing alignment without using an off-alignment alternative in the east-west portion of the corridor to improve the 90-degree curve at STH 38/Six Mile Road/CTH H or the 90-degree curve at STH 38/Six Mile Road/River Road east of the railroad. Remaining on the existing alignment in the east-west portion of STH 38 could require the displacement of an additional 15 residences and 3 businesses, which would not be displaced with the alternatives retained for detailed study. A potentially historic structure (Linwood School) would also be impacted.

This alternative was eliminated from further consideration because it would not address long-term safety concerns at the two 90-degree curve areas, would displace more residences and businesses than off-alignment alternatives, and would require retaining 57 access points in the east-west segment. It was also eliminated based on input from the DNR, public, and local officials. DNR expressed concern that widening existing STH 38 along the Root River corridor could potentially result in adverse water quality impacts due to additional runoff. Area residents and local officials also stated a preference for preserving the rural character of the STH 38 corridor between Six Mile Road and CTH K.

STH 31 Corridor Alternatives

Several alternatives that would provide east-west connections between STH 38 and STH 31 such that STH 31 would serve as a combined facility were considered. Rerouting STH 38 to use the STH 31 corridor was initially considered because STH 38 and STH 31 are parallel roadways about 1.5 miles (2.4 km) apart that provide north-south traffic capacity in the area between Oakwood Road and CTH K. STH 31 is also being widened to a 4-lane facility between Six Mile Road and its intersection with STH 38. The following east-west corridor connections between STH 38 and STH 31 were evaluated:

Seven Mile Road

The Seven Mile Road Alternative would use existing STH 38 from Oakwood Road to Seven Mile Road. It would then follow Seven Mile Road to the STH 32/STH 31 corridor. The alternative was eliminated from further consideration primarily because it would require roughly 30–60 residential displacements along Seven Mile Road and because additional STH 38 traffic at the STH 32/STH 31 intersection would cause traffic operations at the intersection to fail (Level of Service F). This alternative would also impact approximately 23 acres (9.3 ha) of wetland.

Six Mile Road

The Six Mile Road Corridor alternative would follow existing STH 38 from Oakwood Road to Six Mile Road. It would then follow Six Mile Road to the STH 31 corridor. The alternative was eliminated from consideration primarily because of the high number of residential displacements, particularly at the Six Mile Road/STH 31 intersection. Up to 3 apartment buildings would be displaced at the intersection and there would be 30–80 residential displacements overall. In addition, like the Seven Mile Road Corridor Alternative, adding STH 38 traffic to the Six Mile Road/STH 31 intersection would cause traffic operations at the intersection to fail (Level of Service F). This alternative would also impact approximately 10-22 acres (4-9 ha) of wetland.

Five Mile Road

The Five Mile Road Corridor Alternative would follow the same alignment as the Preferred Alternative from Oakwood Road to the Union Pacific Railroad corridor. Rather than utilizing the railroad corridor it would continue to follow Five Mile Road to the STH 31 corridor. The alternative was eliminated from consideration primarily because of the high number of residential displacements (29-30), wetland impacts (16 acres/6.5 ha), and access points (100-175) that would need to be retained.

Four Mile Road

The Four Mile Road Corridor Alternative would follow the STH 38/CTH H alignment from Oakwood Road to Four Mile Road. It would then follow Four Mile Road to the STH 31 corridor. A preliminary impact comparison (no calculations) indicated that the Four Mile Road Alternative had substantially more residential development than the Seven Mile Road, Six Mile Road, and Five Mile Road Corridor Alternatives. Because the residential displacements for the Four Mile Road corridor would be substantially greater than the other alternatives, it was also eliminated from further consideration.

Environmental constraints in the STH 32/STH 31 corridor include scattered wetlands, a cemetery on the west side of STH 31 north of Five Mile Road, and a potentially historic school house on the east side of STH 31 at Five Mile Road. Using the STH 31 corridor would also require an additional crossing of the Root River.

Husher Community Alternatives

The unincorporated community of Husher is located on the east-west leg of existing STH 38 (Six Mile Road). The following alignments were considered in the Husher community in conjunction with the Existing STH 38 Alternative and the Railroad Corridor Alternative.

North Husher Bypass

The North Husher Bypass Alignment would leave existing STH 38 near the STH 38/Six and a Half Mile Road intersection. It would then head east across Nicholson Road and rejoin existing STH 38 near the Union Pacific Railroad or follow the Railroad Corridor Alternative. While the alignment would avoid residential and business displacements in Husher, it was eliminated from further consideration because of DNR's concern about its impacts to isolated natural areas including Zirbes Woods between STH 38 and Nicholson Road. According to DNR, Zirbes Woods supports rare species habitat and should be avoided.

South Husher Bypass

The South Husher Bypass Alignment would leave existing STH 38 near its intersection with Six Mile Road. It would then head east across Nicholson Road and rejoin existing STH 38 near Union Pacific Railroad or follow the Railroad Corridor Alternative. This alignment was eliminated from further consideration due to diagonal farm severances and proximity to a cemetery.

Through Husher

The Through Husher Alignment would follow existing STH 38, widening north or south of the existing roadway. The alignment was eliminated from further consideration because of the number of residential and business displacements that would be required in Husher. Widening north would require 6-8 residential and 2 business displacements. Widening south would require 6-7 residential and 3 business displacements.

Other CTH H Alternatives

The possibility of using the CTH H/CTH K corridor was considered. Under this alternative, existing CTH H and CTH K through Franksville would be widened to a four-lane facility. The alternative was eliminated from further consideration because of community impacts in Franksville. CTH K is a 4-lane undivided roadway in Franksville. On street parking is allowed during non-peak hours. Retail, commercial and residential development is located in close proximity to CTH H and CTH K in Franksville. The Canadian Pacific Railway crosses CTH K 130 feet (40 meters) west of the CTH H and CTH K intersection.

On street parking would likely have to be removed from CTH K if STH 38 were routed on CTH K. This would have an adverse effect on businesses whose patrons use the on street parking. Widening CTH K to provide for travel lanes and two parking lanes would require extensive relocations and possible property acquisition from a park. Increased traffic volumes in the CTH H/CTH K intersection may require a signal. This would create unsafe queuing at the railroad crossing just west of the intersection.

The possibility of using Four Mile Road between CTH H and Union Pacific Railroad as part of the CTH H alternative was also considered based on input at the October 2004 PAC meeting where it was noted that Four Mile Road is one of the few continuous east-west routes in Caledonia between I-94 and STH 32. There was some support for using the Four Mile Road corridor as part of the CTH H Alternative because a roughly 2-mile (3.2 km) segment of Four Mile Road would be widened to a four-lane facility.

This alternative was eliminated from further consideration primarily because it would have poor connections to and from Four Mile Road and STH 38. The Four Mile Road alignment was also eliminated because it would require about 12 residential displacements and impact the Nicholson Wildlife Refuge and adjacent wetlands.

4. In general terms, briefly discuss the construction and operational energy requirements and conservation potential of the various alternatives under consideration. Indicate whether the savings in operational energy are greater than the energy required to construct the facility.

Construction energy is that required in raw materials and equipment to build or maintain the highway. Operational energy is the direct consumption of fuel by vehicles using the roadway. Fuel usage is affected by vehicle type, roadway grades, and other geometric characteristics; speed, congestion and queuing caused by high traffic volumes and intersection stop conditions. The proposed improvements require construction energy for excavating, filling, hauling and pavement construction, and material manufacturing required for the construction of the proposed improvements. The overall construction energy consumption would likely be offset due to new pavement (reduced maintenance), uniform travel speed, reduced delay and more efficient traffic operations through the study area, and a decreased number of crashes.

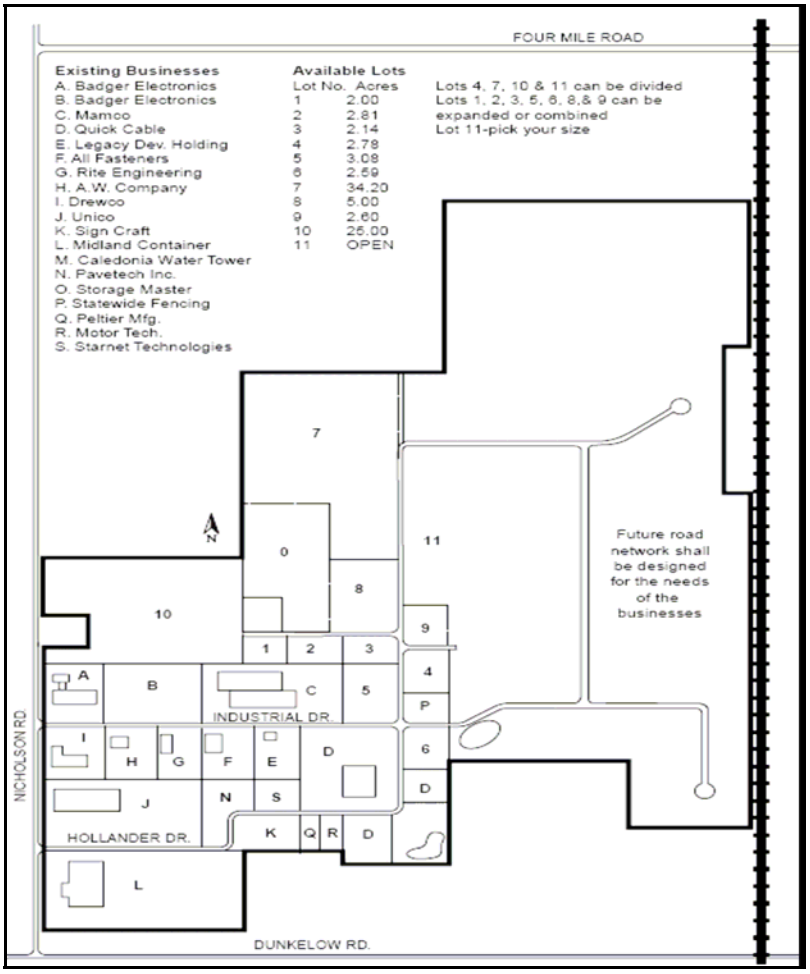
5. Describe existing land use (Attach land use maps if available).

a. Land use in immediate area

Land use along the STH 38 corridor in the project area consists of mostly agricultural land with some residential and business development (see **Exhibit 6**). Between the southern terminus and approximately Hoods Creek Road, residential subdivisions lie on either side of STH 38. Between Hoods Creek Road and Five Mile Road residences on large rural lots lie on the east side of STH 38 while the west side of STH 38 is bordered mostly by farmland.

As shown on the map (next page) the 440 acre (178 ha) Caledonia Business Park is located in the area bordered by Dunkelow Road, Nicholson Road, Four Mile Road and the Union Pacific Railroad. STH 38, CTH H and Nicholson Road are the primary north-south highways providing service to the industrial park (access is from Nicholson Road). As it continues to grow, the industrial park will generate additional traffic in the STH 38 corridor.

Caledonia Business Park



Source: Racine County Economic Development Corporation

From Five Mile Road to Six Mile Road, STH 38 is lined by residences. A two-mile segment of STH 38 lies in an east-west direction between River Road and CTH H. The unincorporated community of Husher lies at the intersection of STH 38 and Nicholson Road. Approximately 12 homes and several businesses are adjacent to STH 38 in Husher.

From Six Mile Road to Six and a Half Mile Road, several businesses and residences are located on STH 38. Two office buildings are located in the northeast quadrant of Seven Mile Road and STH 38. Between Seven Mile Road and Caddy Lane farmland and scattered rural residences are adjacent to STH 38. Caddy Lane connects a 261-unit residential subdivision to STH 38. North of Caddy Lane STH 38 crosses the Root River and associated primary environmental corridor. Between the Root River and Oakwood Road the west side of STH 38 is bordered by farmland. On the east side of STH 38 is farmland between the Root River and Elm Road. North of Elm Road the east side of STH 38 is bordered by houses, a church and a golf course.

b. Land use in area surrounding project area.

The project area is located in the City of Oak Creek and the Village of Caledonia. Land use in the surrounding project area is generally rural. Agricultural land is the predominant land use. Scattered individual residences are located throughout the project area. Near the north and south termini several residential subdivisions are present, including several that have recently been constructed or are currently under construction. Natural features in the project area include the Nicholson Wildlife Refuge and the Root River. Two railroads run north-south in the project area, one west of STH 38 and one that crosses STH 38.

6. Briefly identify adopted plans for the area and discuss whether the proposed action is compatible with the plan. (For example, the following may be considered: Regional Planning Commission Plans, Transportation Improvement Program, State Transportation Improvement Plan, Local zoning and land use plans, DOT Stormwater Management Plans, others.)

2020 Regional Transportation System Plan for Southeastern Wisconsin (SEWRPC Planning Report No. 46, December 1997)—STH 38 is included in the plan as a capacity expansion (4-lane) project.

A Land Use Plan Implementation Strategy For The Rural Area Of The Town Of Caledonia Racine County, Wisconsin (SEWRPC Community Assistance Planning Report No. 272, March 2004). The Village of Caledonia is in the process of completing master plans under Wisconsin's General Charter Law, Section 62.23, Wisconsin Statutes. The Village's planning approach divides the community into Neighborhood Planning groups. The STH 38 project corridor in the Village of Caledonia falls within the R-1 Neighborhood. The R-1 Neighborhood Master Plan was adopted by the Town of Caledonia in June 2004 (Caledonia became a Village in late 2005). The Neighborhood Plan calls for maintaining the rural nature of the area adjacent to existing STH 38 from CTH K to the Milwaukee County line. Village of Caledonia officials and Plan Commission members have been closely involved in developing the Preferred Alternative for the STH 38 Corridor Study.

2020 Vision – A Comprehensive Plan for the City of Oak Creek (April 2002). This plan identifies the area between Oakwood Road and the Racine County line as a mixed-use area. On the west side of STH 38, the plan calls for industrial use from Oakwood Road to the Root River Parkway. On the east side, the plan calls for recreation, institutional, and residential land uses.

A Park and Open Space Plan for Milwaukee County (SEWRPC Planning Report No. 132, November 1991). This plan recommends extending the Oak Leaf Trail across STH 38 in the Root River Corridor. The trail was constructed from the east to STH 38 in November 2005.

2005-2007 Transportation Improvement Program for Southeastern Wisconsin (SEWRPC, January 2005). TIP Project No. 18 provides for preliminary engineering for the rehabilitation of state trunk highways within southeastern Wisconsin.

7. Early coordination with Agencies.

a. Intra-Agency Coordination

i) Bureau of Aeronautics

X No – Coordination is not required. Project is not located within 2 miles (3.22 kilometers) of a public or military use airport, nor would the project change the horizontal or vertical alignment of a transportation facility located within 6.44 kilometers (4 miles) of a public use or military airport.

WBOA was notified about a private air strip in the STH 38 corridor (see Agency Coordination Summary for more information).

☐ Yes – Coordination has been completed and project effects have been addressed. Explain.

ii) District Office Real Estate Section

☐ No – Coordination is not required because no inhabited houses or active businesses will be acquired.

X Yes – Coordination has been completed. WisDOT real estate staff participated in the November 2005 property owner meeting for those homes and businesses that would be displaced by the Preferred Alternative.

b. Interagency Coordination

Agency coordination is summarized in the following table; correspondence is provided in Appendix A.

Agency Coordination Summary

See Appendix A for copies of agency correspondence	**COORDINATION**	**COMMENTS**
	Correspondence Attached Y/N	**Explain or give results. If no correspondence is attached to this document, indicate when coordination with the agency was initiated and if available, when coordination was completed.**
STATE AGENCY		
Agriculture (DATCP)	Y	***November 4, 2005***—Letter from DATCP indicating they will prepare an Agricultural Impact Statement in a future project phase when more detailed engineering design information regarding farm impacts is available and the project is closer to being implemented.
Natural Resources (DNR)	Y	***February 11, 2004***—Letter from DNR Southeast Region Office providing initial information on environmental resources in the STH 38 corridor and other project related information. ***October 14, 2004***—DNR representative attended the STH 38 project advisory committee meeting at which the initial range of alternatives was discussed. ***August 1, 2005***—DNR/WisDOT liaison meeting at which the study team provided an update on the STH 38 Corridor Study including preliminary impacts for the preferred alternative.
	Y	***September 29, 2005***—Letter from DNR Bureau of Endangered Resources providing information on state-listed threatened, endangered, and special concern species potentially present in the STH 38 corridor.
	Y	***January 25, 2006***—Letter from DNR Southeast Region Office concurring with the Preferred Alternative. Updated wetland impact information was sent to DNR in early January 2006.
State Historical Society (SHS)	Y	***February 8, 2006***—SHPO concurs with WisDOT determination that no eligible properties are located in the Area of Potential Effect.

Agency Coordination Summary (continued)

Others: WI Coastal Zone Management Program	Y	***January 13, 2004***—Letter from Wisconsin Coastal Management Program waiving their federal consistency authority for the STH 38 Corridor Study based on the project being developed under the WisDOT/DNR Cooperative Agreement.
FEDERAL AGENCY		
Advisory Council on Historic Preservation (ACHP)	N	Coordination with the ACHP is not required.
Corps of Engineers (COE)	Y	***December 23, 2003***—Letter from COE providing information on resources in the STH 38 corridor that would be subject to permits under Section 404 of the Clean Water Act. ***July 21, 2005***—A COE representative attended the project advisory committee meeting at which the preferred alternative and its impacts was presented.
	Y	***December 6, 2005***—Letter from COE concurring in project purpose and need and the preferred alternative. Updated wetland information was sent to COE in January 2006.
	Y	***February 2, 2006***—E-mail from COE acknowledging January 2006 letter from WisDOT with updated wetland info and re-confirming statements in their December 6, 2005 letter.
Environmental Protection Agency (EPA)	N	Coordination with EPA not required.
National Park Service (NPS)	Y	Phone conversations with NPS Milwaukee and Omaha offices to determine potential LAWCON funds in project area. See Appendix A.
Natural Resource Conservation Service (NRCS)	N	***October 20, 2005***—Letter to NRCS providing an opportunity to review the Farmland Conversion Impact Rating form.
US Coast Guard (USCG)	N	Coordination with USCG not required.
US Fish & Wildlife Service (FWS)	Y	***January 7, 2004***—Letter from FWS indicating no federally-listed threatened or endangered species in the STH 38 study area and indicating that a wetland mitigation plan would be needed to compensate for wetland loss including wetland functions and values.
WisDOT Bureau of Aeronautics (WBOA)	Y	***July 20, 2005***—E-mail from WBOA indicating that the Preferred Alternative (Railroad Corridor) would not be a problem if it would not affect the existing private air strip off Nicholson Road, just south of Five Mile Road.
Native American Tribes		***December 17, 2003***—Letters sent to 11 Native American Tribes/interests notifying them about the STH 38 Corridor Study and providing an opportunity to comment.
	Y	***December 2003***—Letter from Ho Chunk Department of Heritage Preservation indicating interest in the STH 38 Corridor Study and requesting a copy of the Section 106 material prepared for the project. No other Native American letters were received. ***August 17, 2005***—Letters to Milwaukee and Racine County Historical Societies notifying them about the STH 38 Corridor Study, Preferred Alternative, and providing an opportunity to comment.

c. Local Government Coordination

LOCAL UNIT OF GOVERNMENT (See Appendix A for correspondence)	COORDINATION Correspondence Attached Y/N	COMMENTS Explain or give results. If no correspondence is attached to this document, indicate when coordination with the local government was initiated and, if available, when coordination was completed.
Village of Caledonia	N	Caledonia Village Engineer, Village Board members, Village Plan Commission members, and former Village Board Chair participated on the study's Project Advisory Committee (PAC). Several meetings with Village Engineer occurred during the study. Village of Caledonia supports the Preferred Alternative based on PAC input.
City of Oak Creek	N	STH 38 study team met with Oak Creek City Engineer and Planning Director in December 2003 to inform them of the study. Study team kept City Engineer updated on the study and an Oak Creek DPW representative attended the third PAC meeting in July 2005. City of Oak Creek supports the Preferred Alternative based on conversations with City Engineer.
Racine County	N	Racine County Planning Department and DPW participated on the PAC. STH 38 study team met with Racine County DPW and Planning Departments on three occasions in 2003-2005.
Milwaukee County	Y	***February 14, 2006*** —Milwaukee County Parks Department provided information to the study team about county-owned portions of the Root River Corridor including the off-road multi-use trail constructed in 2005. STH 38 study team contacted Milwaukee County DPW at the start of the study and they declined to be actively involved in the project advisory committee effort.

Summary of Environmental Factors/Effects

ENVIRONMENTAL FACTORS	EFFECTS				
	Adverse	Benefit	None	* N/A	Comments
SOCIO-ECONOMIC FACTORS					
General Economics			X		The project requires expenditure of public funds to construct. This cost will be at least partially offset by reductions in long-term maintenance and crash related costs. The project by itself will not change the potential for planned economic development. See page 26 for more information.
Community & Residential	X	X			There will be short-term inconvenience during construction for local roadway users. Access will be maintained during construction. Benefits will include reduced congestion and improved safety. Seventeen residential displacements are required and right-of-way would be acquired from several residential properties. No community facilities would be relocated. See page 27 for more information.
Economic Development and Business	X	X			There will be short-term inconvenience during construction for traffic serving local businesses. Access will be maintained during construction. Benefits will include reduced congestion and improved safety. Access to the Caledonia Industrial Park would be enhanced. One business displacement would be required. See page 32 for more information.
Agriculture	X				Approximately 175 acres (71 ha) of agricultural land would be acquired including one farm displacement and 12 field severances. See page 35 for more information.
Environmental Justice			X		The proposed project would not have a disproportionate effect on any environmental justice individuals, groups or populations.
NATURAL ENVIRONMENT FACTORS					
Wetlands	X				The Preferred Alternative requires a total of approximately 11.5 acres (4.6 ha) of wetland from 16 wetland areas; approximately 3 acres (1.2 ha) is from ADID wetlands. See page 38 for more information.
Streams & Floodplains	X				The proposed action involves 3 structures: A new 2-lane bridge adjacent to the existing 2-lane Root River bridge, widening or replacing an existing Husher Creek structure, and constructing a new Husher Creek crossing/structure. A segment of Husher Creek just north and south of Seven Mile Road would need to be realigned west of the existing and widened roadway. See page 44 for more information.
Lakes or Other Open Water				X	No lakes or other open water would be affected by the proposed action.
Upland Habitat	X				Approximately 0.7 acres (0.3 ha) of wooded upland habitat would be affected. See page 48 for more information.
Erosion Control	X	X			There is a potential for erosion impacts during construction. Implementing strict erosion control measures will minimize potential adverse effects to wetlands and water quality. See page 50 for more information
Stormwater Management	X	X			There is a potential for stormwater impacts during and after construction. Implementing sound stormwater management measures will minimize potential adverse effects. See page 53 for more information.

Summary of Environmental Factors/Effects (continued)

PHYSICAL ENVIRONMENT FACTORS					
Air Quality			X		Based on preliminary traffic information from SEWRPC, the new roadway segment for the Preferred Alternative (Railroad Corridor) would not be exempt from permit requirements under Wisconsin Administrative Code Chapter NR 411. The modified roadway segment would be exempt. See page 56 for more information. The project will be included in a future amendment to the 2005-2007 TIP. No air quality impacts are anticipated as a result of the proposed action. See Appendix B for a discussion of mobile source air toxics.
Construction Stage Sound Quality			X		WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply. See page 58 for more information.
Traffic Noise	X				Noise analysis indicates there will be noise impacts for representative worst case receptors. In accordance with Wisconsin Administrative Code Chapter TRANS 405, noise abatement would not be cost effective or practicable. See page 60 for more information. See Appendix C for noise notification letter.
CULTURAL ENVIRONMENTAL FACTORS					
Section 4(f) and 6(f)			X		A portion of the Root River floodplain in Milwaukee County and Racine County is owned by Milwaukee County and used for flood control, natural resource preservation and passive/active recreation. A multi-use trail currently ends at STH 38. See page 62 and Appendix D "Programmatic Section 4(f) Evaluation" for more information.
Historic Resources			X		The Preferred Alternative will not affect any historic structures that are considered historically important or potentially eligible to the National Register of Historic Places. See Appendix A for signed Section 106 form.
Archaeological Resources			X		The Preferred Alternative will not affect any archaeological sites that are considered important or potentially eligible to the National Register of Historic Places. See Appendix A for signed Section 106 form.
Hazardous Substances or USTs			X		There is potential petroleum contamination in the area of potential effect for the Preferred Alternative. This site is not anticipated to require a revision to the Preferred Alternative alignment. See page 65 for more information
Aesthetics	X				The new, wider roadway will be a more prominent feature in the rural/suburban viewshed, particularly the segment on new alignment. See page 67 for more information.
Coastal Zone			X		The proposed action is consistent with Coastal Zone Management objectives. See page 69 for more information.
Other					

* N/A Blacked out cells in this column require a notation in at least one of the other columns.

Environmental Cost Matrix
Transportation Improvements

ENVIRONMENTAL FACTOR	UNIT MEASURE	ALTERNATIVES/SECTIONS	
		No Build	Preferred Alternative (Railroad Corridor)
Project Length	Miles (km)	0	9 (14 km)
Cost $			
Construction	Million $	$0	$51.8 Million
Real Estate	Million $	$0	$11.2 million
Total	Million $	$0	$63 million
Land Conversions			
Total Area Converted to R/W	Acres (Hectares)	0	226 (92 ha)
Wetland Area Converted to R/W	Acres (Hectares)	0	11.5 (4.6 ha)
Upland Area Converted to R/W	Acres (Hectares)	0	0.7 (0.3 ha)
Other Area Converted to R/W	Acres (Hectares)	0	214 acres (87 ha)
Real Estate			
Number of Farms Affected	Number	0	21
Total Land From Farm Operations	Acres (Hectares)	0	175 (71 ha)
AIS Required	Yes/No	No	Yes, will be prepared in a future engineering phase
Farmland Rating	Score	0	55
Total Farm Buildings Required	Number	0	2
Housing Units Required	Number	0	17
Commercial Units Required	Number	0	1
Other Buildings or Structures Required	Number (Type)	0	0
Environmental Issues			
Floodplain	Yes/No	No	Yes
Stream Crossings	Number	No	3
Endangered Species	Yes/No	No	No
Historic Properties	Number	No	No
Archeological Sites	Number	No	No
Section 106 MOA Required	Yes/No	No	No
Section 4(f) Evaluation Required	Yes/No	No	Yes
Environmental Justice Issues	Yes/No	No	No
Air Quality Permit	Yes/No	No	No
Design Year Noise Sensitive Receptors No Impact Impacted	Number Number Number	0 0 0	9 6 3
Contaminated Sites	Number	0	1 Site (Potential)

8. Describe how the project development process complied with Executive Order 12898 on Environmental Justice. (EO 12898 requires agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health and environmental effects on minority populations and low-income populations, including the interrelated social and economic effects. Include those covered by the Americans with Disabilities Act and the Age Discrimination Act.)

a. Identify sources of data used to determine presence of minority populations and low-income populations.

- X Windshield Survey
- ☐ WisDOT Real Estate
- ☐ Real Estate Company (Identify Real Estate Company)
- ☐ Human Resource Agency (Identify Agency)
- ☐ Official Plan (Identify Plan, Approval Authority, and Date of Approval)
- ☐ Survey Questionnaire
- X US Census Data
- ☐ Door to Door

The project team also coordinated with the Village of Caledonia Board members to determine the extent and location of minority residents.

b. Indicate whether a minority population or a low-income population, including the elderly and the disabled, is in the project's area of influence.

i) The requirements of EO 12898 are met if both "No" boxes are checked below.

- X No minority population is in the project's area of influence.
- X No low-income population is in the project's area of influence.

The project is located in the Village of Caledonia (incorporated as a village in 2005) and City of Oak Creek. The 2000 census data indicates the following population characteristics for these municipalities:

Village of Caledonia
Total population—23,614
White—94% of total population
Black or African American—2% of total population
American Indian and Alaska Native—<1% of total population
Asian—1% of total population
Hispanic Origin/other—3% of total population

City of Oak Creek
Total population—28,456
White—92% of total population
Black or African American—2% of total population
American Indian and Alaska Native—<1% of total population
Asian—2% of total population
Hispanic Origin/other—4% of total population

The per capita income for the Village of Caledonia is $26,031 and $23,586 for the City of Oak Creek, compared to the national poverty line per capita income of approximately $9,310.

During the project's public involvement activities the study team had an opportunity to visit with the majority of residents/landowners located in the area of influence for the Preferred Alternative (Railroad Corridor). There is no indication that the proposed improvements would affect any individuals, groups, or populations subject to Environmental Justice requirements. There are no Environmental Justice concerns with the proposed action.

Information obtained from a Village of Caledonia Supervisor indicates that some African American households are located near the CTH H/Four Mile Road intersection. This intersection is in the area of influence for the CTH H Alternative that was dropped from further consideration. All residents along CTH H were on the project's mailing list for meeting notices and other information about the proposed action. Due to dropping the CTH H alternative, no special outreach was required.

ii) If either or both of the "Yes" boxes are checked, item c) below must be completed.

- ☐ Yes, a minority population is within the project's area of influence.
- ☐ Yes, a low-income population is within project's area of influence.

c. How was information on the proposed action communicated to the minority and/or low- income population(s)? Check all that apply.

Not applicable; no minority or low-income populations identified in area of influence for Preferred Alternative.

☐ Advertising	☐ Brochures	☐ Newsletter
☐ Notices	☐ Utility Bill Stuffers	☐ E-mail
☐ Public Service Announcements	☐ Direct Mailings	☐ Key Person
☐ Other (Identify)		

d. Identify how input from the minority population and/or low-income population was obtained. Check all that apply.

Not applicable; no minority or low-income populations identified in area of influence for Preferred Alternative.

☐ Mailed Survey	☐ Door-to-door interview	☐ Focus Group Research
☐ Public Meeting	☐ Public Hearing	☐ Key Person Interview
☐ Targeted Small Group Informational Meeting		☐ Targeted Workshop/Conference
☐ Other (Identify)		

e. Indicate any special provisions that were made to encourage participation from the minority population and/or low-income population(s)

Not applicable; no minority or low-income populations identified in area of influence for Preferred Alternative.

☐ Interpreter	☐ Listening Aids	☐ Accessibility for Elderly and Disabled
☐ Transportation Provided	☐ Child Care Provided	☐ Sign Language
☐ Other (Identify)		

9. Briefly summarize the status and results of public involvement. Briefly describe how the public involvement process complied with EO 12898 on Environmental Justice.

June 17, 2004—First Project Advisory Committee (PAC) meeting was held to introduce the STH 38 Corridor Study to the PAC membership. The meeting was attended by 14 members of the PAC, WisDOT and the consultant team. The role of the PAC, study schedule, reasons for the study, elements of the study, data collection status, and alternatives development and refinement were discussed.

July 15, 2004—First public information meeting held to present the study scope, purpose and need factors and the preliminary range of alternatives. The meeting was open house from 4 to 7 p.m. and was attended by approximately 95 people. The meeting notice was published in the *Racine Journal Times*, the *Milwaukee Journal Sentinel* and the *Oak Creek Pictorial* and sent to approximately 1,560 individuals on the project's mailing list. In general, those attending the meeting recognized the need for addressing traffic and safety concerns in the STH 38 corridor and its local road intersections. There was no clear consensus for a particular alternative, but several people suggested using the railroad corridor between Six Mile Road and CTH K. Several people asked about the timing of the long-term improvements and what could be done in the interim to address high crash locations. Concerns with the preliminary alternatives focused on individual property impacts including farmland loss, and proximity of a new 4-lane highway to existing homes and businesses.

October 14, 2004—Second Project Advisory Committee meeting was held to obtain input from the PAC on the range of alternatives that were being considered prior to the public information meeting on October 20, 2004. Along with WisDOT staff and the consultant team, eleven members of the PAC were present. The study team provided a recap of the study's purpose and scope, an update on activities since the first PAC meeting, a review of the alternatives, a preliminary impact summary table and a discussion of upcoming activities and a review of the project schedule.

October 20, 2004—Second public information meeting held to present the refined range of alternatives including the Preferred Alternative (Railroad Corridor). The meeting was open house from 4 to 7 p.m. and was attended by approximately 66 people. The meeting notice was published in the *Racine Journal Times*, the *Milwaukee Journal Sentinel* and the *Oak Creek Pictorial* and sent to approximately 1,560 individuals on the project's mailing list. Persons attending the meeting continued to express support for addressing traffic and safety concerns in the STH 38 corridor and its local road intersections. Again, there was no clear consensus for a particular alternative. Several people including local officials expressed their desire to maintain the rural character of the STH 38 corridor south of Six Mile Road. Concerns with the alternatives included residential displacements, proximity to residential and business development, loss of farmland and field severances, and impacts to individual properties.

July 21, 2005—Third Project Advisory Committee meeting held to obtain input on the refined range of alternatives being considered and to identify the study's recommended alternative. There were twelve PAC members present at the meeting along with WisDOT staff and the consultant team. The study team provided an update on activities since the second PAC meeting, reviewed the alternatives, discussed the environmental assessment, and reviewed the project schedule. The PAC generally agreed that the Railroad Alternative appeared to be the most practicable course of action.

November 14, 2005—A meeting was held for property owners identified as residential or business displacements. The purpose of the meeting was to obtain information and to determine if there would be any special needs for those displaced. Fifteen individual notices were sent out to affected property owners. Four property owners attended the meeting. WisDOT real estate staff was present to answer any questions regarding relocation assistance. Follow up calls were made to those who were not in attendance.

The public involvement process was inclusive of all residents and population groups in the project corridor and did not exclude any persons because of income, race, color, religion, national origin, sex, age or handicap.

a. Identify groups (e.g., elderly, handicapped), minority populations and low-income populations that participated in the public involvement process. This would include any organizations and special interest groups.

Not applicable.

b. Describe, briefly, the issues, if any, identified by any groups, minority populations and/or low-income populations during the public involvement process.

Not applicable.

c. Briefly describe how the issues identified above were addressed. Include a discussion of those that were avoided as well as those that were minimized and those that are to be mitigated. Include a brief discussion of proposed mitigation, if any.

Not applicable.

Traffic Summary [1]

	ALTERNATIVE Preferred Alternative (Railroad Corridor)			
	SEGMENT TERMINI	CTH K to Five Mile Road (new roadway segment)	Five Mile Road to Six Mile Road (uses Five Mile and CTH H alignment)	Six Mile Road to Oakwood Road (uses existing STH 38 alignment)
TRAFFIC VOLUMES	**Year**			
Existing ADT	2002	N/A	Five Mile Road (unavailable) CTH H (2,600)	8,500-11,200
Construction Year ADT	2015	11,500	15,600	16,200
Construction + 10 ADT	2025	13,500	18,000	19,000
Design Year ADT	2035	15,300	20,300	21,700
Design Year DHV	2035	N/A	20,300	21,700
Existing PHV	2002	N/A	N/A	1,370
Construction Year PHV	2015	1,480	2,000	2,080
Construction + 10 PHV	2025	1,730	2,310	2,440
TRAFFIC FACTORS	K100	10.5	10.5	10.5
	D (%)	50-50	50-50	50-50
	T (% of ADT)	8.6	8.6	8.6
Design Year	T (% of DHV)	5.7	5.7	5.7
	Level of Service	A	A	B
SPEEDS Existing	Posted	N/A	45-55	45-55
Design Year	Posted	55	55	45-55
	Project Design Speed	60	60	60
OTHER (Specify)	P (% of ADT)	12.8	12.8	12.8
	K (% of ADT)			

ADT = Average Daily Traffic
DHV = Design Hourly Volume
$K_{100/200}$ or % = K_{100} = Rural, K_{200} = Urban, % = ADT in DHV
D = % DHV in predominate direction of travel
P = % ADT in peak hour
T = Trucks
K_8 = % ADT occurring in the average of the 8 highest consecutive hours of traffic on an average day (only required when a carbon monoxide analysis must be performed per Wisconsin Administrative Code – Chapter NR 411).

Note:
1. The traffic in this table is for the Preferred Alternative (Railroad Corridor) that has a new roadway segment in the area between CTH K and Five Mile Road. Because WisDOT's initial traffic forecast was only for the existing STH 38 corridor, SEWRPC was asked to provide future traffic volumes with the new roadway segment in place. SEWRPC provided forecast volumes for year 2025 which they assumed to be the Design Year at the time the request was made. The study team used WisDOT's forecast data to factor the SEWRPC 2025 volumes to other years indicated in the table including Design Year 2035.

ENVIRONMENTAL ISSUES

Indicate whether the issue listed below is a concern for the proposed action or alternative. If the issue is a concern, explain how it is to be addressed or where it is addressed in this environmental document.

1. Would the proposed action stimulate substantial secondary environmental effects?

X No

☐ Yes - Explain or indicate where addressed.

2. Would the creation of a new environmental effect result from this proposed action?

X No

☐ Yes - Explain or indicate where addressed.

3. Would the proposed action impact geographically scarce resources?

X No

☐ Yes - Explain or indicate where addressed.

4. Would the proposed action have a precedent-setting nature?

X No

☐ Yes - Explain or indicate where addressed.

5. Is the degree of controversy associated with the proposed action high?

X No

☐ Yes - Explain or indicate where addressed.

6. Would the proposed action have any conflicts with official agency plans or local, state, or national policies, including conflicts resulting from potential effects of transportation on land use and land use on transportation demand?

X No

☐ Yes - Explain or indicate where addressed.

7. Would the proposed action contribute to cumulative environmental impacts of repeated actions?

X No

☐ Yes - Explain or indicate where addressed.

ENVIRONMENTAL COMMITMENTS

Identify and describe any commitments made to protect the environment. Indicate when the commitment should be implemented and who in WisDOT would have jurisdiction to assure fulfillment for each commitment.

ATTACH THIS PAGE TO THE DESIGN STUDY REPORT

A. General Economics—None

B. Community & Residential—Relocation assistance would be provided in accordance with the Uniform Relocation Assistance Act of 1970, as amended. All driveways and access points will be reconstructed to provide safe and reasonable access to affected properties.

C. Commercial & Industrial—Relocation assistance would be provided in accordance with the Uniform Relocation Assistance Act of 1970, as amended.

D. Agriculture—Farmland acquisition will be minimized to the extent practicable. WisDOT will work with affected farmers in the design phase to determine the location of field entrances.

E. Environmental Justice—None

F. Wetlands—The project's wetland impacts would be mitigated in accordance with applicable regulations. A detailed wetland mitigation plan will be developed during the project's engineering design phase.

G. Streams & Floodplains—Specifications for the relocated segment of Husher Creek will be developed in a future engineering design phase in consultation with DNR. Specific in-stream construction constraint dates will be verified with DNR in a future engineering design phase. At this time, DNR requests that no in-stream construction be done in the Root River from March 1 to June 15 and in Husher Creek from April 1 to June 1.

H. Lakes or Other Open Water—None

I. Upland Habitat— Measures to minimize adverse impacts include the use of effective erosion control, revegetation as soon as possible after construction, and maintenance practices that provide wildlife habitat by allowing successional layers of vegetation to establish outside the highway safety clear zones.

J. Erosion Control—None other than normal practices specified in applicable guidelines/regulations.

K. Stormwater Management—None other than normal practices specified in applicable guidelines/regulations.

L. Air Quality--None

X The project is exempt from permit requirements per Wisconsin Administrative Code – Chapter NR 411 criteria.

☐ A construction permit is required for this project and an application has been submitted to the Department of Natural Resources Bureau of Air Management. Construction on the project will not begin until the Construction Permit has been issued. See the Air Quality Factor Sheet.

☐ A construction permit is required for this project and has been issued by the Department of Natural Resources Bureau of Air Management. The Construction Permit Number is _____. See the Air Quality Factor Sheet.

M. Construction Stage Sound Quality

☐ No receptors are located in the project area. No impacts are anticipated from construction noise.

X WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply.

N. Traffic Noise—None

O. Section 4(f) and 6(f)—None; pending further coordination with Milwaukee County and approval of programmatic Section 4(f) evaluation.

P. Historic Resources—None

Q. Archaeological Resources—None

R. Hazardous Substances or USTs—Contractor will be notified of the potential for petroleum contamination at the intersection of 7 Mile Road and STH 38. This area may require special excavation and handling during the construction phase.

S. Aesthetics—None

T. Coastal Zone—None

U. Threatened or Endangered Species — DNR indicates that some state-listed threatened and endangered plant species may be present in the corridor. The need for any future field inventories or mitigation measures for threatened or endangered species will be determined in a future engineering design phase in consultation with DNR.

GENERAL ECONOMICS IMPACT EVALUATION

DT2078 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Describe, briefly, the existing economic characteristics of the area around the project. This could include type(s) of farming, retail or wholesale businesses, manufacturing, tourism, or other elements contributing to the area's economy and potentially affected by the project.

The largest concentration of commercial activity is in the Caledonia Business Park located just east of Nicholson Road and north of Dunkelow Road. Approximately 19 businesses are located in the business park. The remaining businesses are scattered along the STH 38 corridor. Between Oakwood Road and Six Mile Road, businesses include a golf course, restaurant, landscape supply business, horse boarding and livery, a media production business, a meeting planning firm and a landscaping contractor. From the intersection of STH 38/Six Mile Road and CTH H to the intersection of Six Mile Road/River Road and STH 38, commercial businesses include a tree nursery, a lawn implement sale and repair business, a retail store, a tavern, and a used car dealership.

Agriculture is a dominant activity within the project area. Cabbage farms and a pumpkin farm are located along STH 38 and CTH H. Feed crops are also grown in the project corridor.

2. Discuss the economic advantages and disadvantages of the proposed action. Indicate how the project would affect the characteristics described in item 1 above.

The proposed improvements are needed due to increasing traffic volumes and safety concerns along STH 38. Improvements would provide better access to the Caledonia Business Park. Improved STH 38 would also provide a better connection between the Racine and Milwaukee Metropolitan areas and would improve the flow of goods and services between these areas.

3. In general, will the proposed action increase or decrease the potential for economic development in the area influenced by the project?

The proposed improvements will not directly increase or decrease the potential for planned economic development, but would reduce travel times and transportation costs by reducing crashes and providing more efficient access to and from businesses served by STH 38.

COMMUNITY OR RESIDENTIAL IMPACT EVALUATION

DT2075 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Give a brief description of the community or neighborhood affected by the proposed action.

Community/Neighborhood Name: **Village of Caledonia**

Community/Neighborhood Population: 23,614 (2000 census)	Community is Unincorporated ☐ Yes X No

Community/Neighborhood Characteristics:

The following community characteristics are from the 2000 census:

- Total owner occupied households—8,549
- Total rental households—7,262
- Average household size (owner occupied)—3
- Average household size (rental)—2
- Total labor force—13,100
- Unemployment rate—3.8
- Employment sectors—37% management, professional and related; 25% sales and office occupations; 8% construction, extraction and maintenance occupations; 20% production, transportation and material moving occupations; and 10% service occupations.

Community/Neighborhood Name: **City of Oak Creek**

Community/Neighborhood Population: 28,456 (2000 census)	Community is Unincorporated ☐ Yes X No

Community/Neighborhood Characteristics:

The following community characteristics are from the 2000 census:

- Total owner occupied households—6,847
- Total rental households—4,392
- Average household size (owner occupied)—3
- Average household size (rental)—2
- Total labor force—16,846
- Unemployment rate—1.6
- Employment sectors—33% management, professional and related; 28% sales and office occupations; 10% construction, extraction and maintenance occupations; 17% production, transportation and material moving occupations; and 12% service occupations.

2. Identify and discuss the existing modes of transportation and their traffic within the community or neighborhood.

The primary transportation mode is driving (single occupancy vehicle use for commuting to work is 89% in the Village of Caledonia and 88% in the City of Oak Creek). The mean travel time to work is 24 minutes for both communities. Traffic information is provided on page 23.

Public transit services are available in Oak Creek, but not in Caledonia. The Milwaukee County Transit Service operates a bus route in Oak Creek along Ryan Road, approximately one mile (1.6 kilometer) north of Oakwood Road. The Union Pacific Railroad operates a rail line within the project area. According to UPRR and WisDOT records, the UPRR operated approximately 9 to 16 trains per day over this line in 2004.

3. Identify and discuss the probable changes resulting from the proposed action to the modes of transportation and their traffic within the community or neighborhood.

Transportation modes and the type and volume of traffic in the STH 38 corridor as a whole would not substantially change as a result of implementing the proposed action. The Preferred Alternative (Railroad Corridor) would divert approximately 50 percent of traffic from existing STH 38 between CTH K and Six Mile Road according to SEWRPC. Approximately 2,500 vehicles per day would remain on the existing STH 38 alignment between CTH K and Six Mile Road in Design Year 2035. The Five Mile Road segment of the Preferred Alternative would experience a fairly substantial increase in traffic (from approximately 200 vehicles in the peak hour to approximately 1,300 in Design Year 2035). The new roadway will provide a safer and more efficient highway network for local and through traffic.

4. Briefly discuss the proposed action's effect(s) on existing and planned land use in the community or neighborhood.

The Village of Caledonia recently completed a neighborhood master plan for the R-1 neighborhood, which encompasses the STH 38 corridor. The plan calls for maintaining the rural character of Caledonia by requiring larger lot sizes for new developments. The Preferred Alternative (Railroad Corridor) was identified with input from the Caledonia Planning Commission and would not substantially change existing or planned development in the STH 38 corridor. Planned development and associated land use changes in the corridor would occur with or without the STH 38 improvements. In areas where the Preferred Alternative is on new location, the primary change in existing land use would be conversion of agricultural land to transportation use.

5. Address any changes to emergency services or other public services during and after construction of the proposed project.

Access will be maintained during construction for emergency and other public services. Following construction, the improved roadway will result in safer roadway conditions and more efficient response times for emergency and public service traffic in the project area due to increased roadway capacity, reduced congestion, additional turning capacity at intersections and fewer conflicts between turning traffic and through traffic.

6. Describe any physical or access changes and their effects to lot frontages, driveways, or sidewalks. This could include effects on side slopes or driveways (steeper or flatter), reduced terraces, tree removal, vision corners, sidewalk removal, etc.

Based on the conceptual level of design engineering for the STH 38 Corridor Study, the specific impacts to lot frontages and driveways are unknown at this time. All driveways and access points will be reconstructed to provide safe and reasonable access to affected properties.

7. Indicate whether a community/neighborhood facility will be affected by the proposed action and indicate what effect(s) this will have, overall, on the community/neighborhood. Also include and identify any minority population or low-income population that may be affected by the proposed action.

No neighborhood or community facilities will be affected by the proposed action. No known minority or low-income populations will be affected by the proposed action.

8. Place an "X" in the appropriate box below if one of the populations indicated would be affected by the proposal. Give a brief description of the community/neighborhood and population affected by the proposed action. Include demographic characteristics of those affected by the proposal.

For the populations shown below, The Orders issued by the U.S. Department of Transportation and its implementing agencies to satisfy the requirements of Executive Order 12898 require an evaluation to determine whether a minority and/or low-income population would experience a disproportionately high and adverse effect. If any of the populations shown below are affected, form DT2093, Environmental Justice Impact Evaluation, along with the remaining items on this worksheet, will need to be completed to satisfy Environmental Justice requirements.

a. Is disabled population affected?

X No

☐ Yes - See form DT2093, Environmental Justice Impact Evaluation.

b. Is elderly population affected?

X No

☐ Yes - See form DT2093, Environmental Justice Impact Evaluation.

c. Are minority populations affected?

X No

☐ Yes - See form DT2093, Environmental Justice Impact Evaluation.

d. Are low-income populations affected?

X No

☐ Yes - See form DT2093, Environmental Justice Impact Evaluation.

9. Identify and discuss, in general terms, factors that residents have indicated to be important or controversial.

Caledonia residents and local officials have expressed a desire to maintain the rural character of existing STH 38 and prefer that STH 38 not be widened on its present alignment south of Six Mile Road.

10. Indicate the number and type of any residential buildings that would be removed because of the proposed action. If either item 10a or 10b is checked, items 11 through 18 do not need to be addressed or included in the environmental document.

a. ☐ None

b. ☐ No occupied residential building will be acquired as a result of this project.

c. X Occupied residential building(s) will be acquired. Provide number and description of buildings, e.g., single family homes, apartment buildings, condominiums, duplexes, etc. If item 10c is checked, you must complete items 11 through 18.

11. Estimate the number of households that would be displaced from the occupied residential buildings identified in item 10c above.

Total Number of Households to be Relocated	17

(Note that this number may be greater than the number shown in 10c) above because an occupied apartment building may have many households.)

a. Number by Ownership

Number of Households Living in Owner Occupied Building	17
Number of Households Living in Rented Quarters	

b. Number of households to be relocated that have

1 Bedroom	2 Bedrooms	3 Bedrooms	4 or More Bedrooms
	5	7	5

c. Number of relocated households by type and price range of dwelling

Number of Single Family Dwellings	Price Range
7	120,000 – 160,000
7	160,000 – 200,000
2	200,000 – 240,000
1	240,000 and Above
Number of Multi-Family Dwellings: 0	Price Range
Number of Apartments: 0	Price Range

12. Describe the relocation potential in the community.

a. Number of Available Dwellings

1 Bedroom	2 Bedrooms	3 Bedrooms	4 or More Bedrooms
	1	66	39

b. Number of Available and Comparable Dwellings by Location

All of the houses available at the time of the search were within 10 miles of the project corridor.

c. Number of Available and Comparable Dwellings by Type and Price. (Include dwellings in price ranges comparable to those being dislocated, if any.)

Single Family Dwellings	Price Range
16	120,000 – 160,000
20	160,000 – 200,000
25	200,000 – 240,000
45	240,000 and Above
Multi-Family Dwellings	Price Range
0	
Apartments	Price Range
0	

13. Identify all the sources of information used to obtain the data in item 12.

☐ WisDOT Real Estate

X Multiple Listing Service (MLS) (South Central Wisconsin MLS Corporation September 2005)

☐ Newspaper Listing(s)

☐ Other – Identify

14. Indicate the number of households to be relocated that have the following special characteristics.

Number of Minority Households	Number of Elderly Households
0	2
Number of Households with Disabled Residents	Number of Low-Income Households
0	0
Number of Households Made up of a Large Family (5 or more individuals)	Number of Households with no Special Characteristics
0	14

Number of Households for Which it is not Known Whether They Have Special Characteristics: 1

15. Describe how relocation assistance will be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24.

Federal property acquisition law provides for payment of just compensation for residences displaced by a federally funded transportation project. Acquisition price, replacement dwelling costs, moving expenses, increased rental or mortgage payments, closing costs, and other relocation costs are covered. No person would be displaced unless a comparable replacement dwelling is provided. Compensation is available to all displaced persons without discrimination.

Relocation assistance will be provided in accordance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24. Before the initiation of any property acquisition activities members of the WisDOT Real Estate Section will contact property owners and tenants to explain details of the acquisition process and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

16. Identify any difficulties or unusual conditions for relocating households displaced by the proposed action.

On November 14, 2005 a meeting was held with property owners identified as residential or business displacements. The purpose was to obtain information and determine if there would be any special needs for those displaced. Based on the meeting and follow up calls to those who could not attend, no difficulties have been identified, nor has the need for special services or programs been identified. However, if unusual problems arise during the real estate acquisition phase, WisDOT real estate staff will be prepared to provide the appropriate relocation service.

17. Indicate whether Special Relocation Assistance Service will be needed. Describe any special services or housing programs needed to remedy identified difficulties or unusual conditions noted in item #14 above.

X No - 2 elderly residents did not indicate special services would be required.
☐ Yes - Describe services that will be required.

18. Describe any additional measures which would be used to minimize adverse effects or provide benefits to those relocated, those remaining, or to community facilities affected.

The need for additional measures or benefits has not been identified.

Wisconsin Department of Transportation

ECONOMIC DEVELOPMENT AND BUSINESS IMPACT EVALUATION

DT2095 2005

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Describe the economic development or existing business areas affected by the proposed action.

Businesses along the project corridor include a privately-owned golf course, private campground, two landscaping companies, a restaurant, farming operations and approximately 19 businesses within the Caledonia Business Park. The golf course, located just south of the intersection of Oakwood Road and STH 38, would have some parking spaces eliminated due to widening of STH 38. A farm market/nursery business would be displaced as a result of the proposed action. Other businesses would have a strip of right-of-way acquired from them.

2. Identify and discuss the existing modes of transportation and their traffic within the economic development or existing business area.

Businesses within the project area are accessed by trucks and autos via STH 38. Seven Mile Road and CTH G both provide access to Interstate 94. Existing and forecast traffic information is provided on page 19.

3. Place an "X" in the appropriate box below if one of the populations indicated would be affected by the proposal. Give a brief description of the community/neighborhood and population affected by the proposed action. Include demographic characteristics of those affected by the proposal.

For the populations shown below, The Orders issued by the U.S. Department of Transportation and its implementing agencies to satisfy the requirements of Executive Order 12898 require an evaluation to determine whether a minority and/or low income population would experience a disproportionately high and adverse effect. If any of the populations shown below are affected, DT2093, Environmental Justice Impact Evaluation, along with the remaining items on this worksheet, will need to be completed to satisfy Environmental Justice requirements.

X Disabled population is not affected.
☐ Disabled population is affected. See DT2093, Environmental Justice Impact Evaluation.

X Elderly population is not affected.
☐ Elderly population is affected. See DT2093, Environmental Justice Impact Evaluation.

X Minority population is not affected.
☐ Minority population is affected. See DT2093, Environmental Justice Impact Evaluation.

X Low-income population is not affected.
☐ Low income population is affected. See DT2093, Environmental Justice Impact Evaluation.

4. Identify and discuss effects on the economic development potential and existing businesses that are dependent upon the transportation facility for continued economic viability.

X The proposed project will have no effect on transportation-dependent businesses or industry.
☐ The proposed action will change the conditions for a business that is dependent upon the transportation facility. Identify effects, including effects that may occur during construction.

5. Estimate the number of businesses and jobs that would be created or displaced because of the project.

a. Total number created X **None**

Number created by type including number of jobs.

Retail businesses created		Retail jobs created	
Service businesses created		Service jobs created	
Wholesale businesses created		Wholesale jobs created	
Manufacturing businesses created		Manufacturing jobs created	

b. Total number displaced 1 ☐ **None**

Farmers market/nursery business

Number displaced by type and number of jobs.

Retail businesses displaced	1	Retail jobs displaced	2
Service businesses displaced		Service jobs displaced	
Wholesale businesses displaced		Wholesale jobs displaced	
Manufacturing businesses displaced		Manufacturing jobs displaced	

6. Identify any special characteristics of the created or displaced businesses or their employees.

a. Number of created businesses by special characteristics X None

Created businesses that will employ elderly/serve elderly
Created businesses that will employ disabled/serve disabled
Created businesses that will employ low income people/serve low income people
Created businesses that will employ a minority population/serve a minority population

b. Number of displaced businesses by special characteristics X None

Displaced businesses that employ elderly/serve elderly
Displaced businesses that employ disabled/serve disabled
Displaced businesses that employ low income people/serve low income people
Displaced businesses that employ a minority population/serve a minority population

7. Is Special Relocation Assistance Needed?

X No

☐ Yes – Describe special relocation needs.

8. Describe the business relocation potential in the community.

a. Total number of available business buildings in the community. 0

b. Number of available and comparable business buildings by location

0 Number of available and comparable business buildings within 1 mile of the project corridor.
0 Number of available and comparable business buildings within 2 miles of the project corridor.

c. Number of available and comparable business buildings by type and price (Include business buildings in price ranges comparable to those being displaced if any.)

At this time, there are no directly comparable nursery businesses listed in the MLS. However, there is vacant land in the STH 38 corridor that may be suitable for re-establishing this business including constructing a comparable building. In a future project phase, WisDOT real estate staff would provide assistance to the business owner in locating a suitable replacement business site or providing other compensation in accordance with state and federal relocation laws.

9. Identify all the sources of information used to obtain the data in item 8.

☐ WisDOT Real Estate	X Multiple Listing Service (MLS)
☐ Newspaper listing(s)	☐ Other - Identify

10. Describe how relocation assistance will be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24.

Federal property acquisition law provides for payment of just compensation for businesses displaced by a federally funded transportation project. Acquisition price, moving expenses, and other relocation costs are covered. No person would be displaced unless a comparable replacement business is provided. Compensation is available to all displaced persons without discrimination.

11. Identify any difficulties for relocating a business displaced by the proposed action and describe any special services needed to remedy identified unusual conditions.

A farm market/nursery business would be affected by the proposed action including the barn on the property that is used for the business. Currently, there are no comparable properties available in the Village of Caledonia or in the project area. However, construction of STH 38 is not anticipated for 6-10 years. The affected property would need to be reviewed in a future design engineering phase to determine whether there has been a change in its status and to assess the relocation potential.

12. Describe any additional measures which would be used to minimize adverse effects or provide benefits to those relocated, those remaining, or to community facilities affected.

None identified at this time.

13. Generally describe both the beneficial and adverse effects accruing to:

a. The area's economic development potential or existing business area caused by the proposed action. Include any factors identified by business people that they feel are important or controversial.

The proposed improvements would reduce congestion and provide safer access to existing and planned business development in the STH 38 corridor. Benefits to businesses would include reduced travel time and costs for consumers and for receiving and shipping products.

b. The employment potential and existing employees in businesses affected by the proposal. Include, as appropriate, a discussion of effects accruing to minority populations or low-income populations.

The proposed action would not affect the employment potential in the STH 38 corridor. No minority or low-income populations would be affected by the proposed action.

AGRICULTURAL IMPACT EVALUATION

DT2063 2003

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

Type of Land Acquired From Farm Operations	Type of Acquisition		Total Area Acquired
	Area Acquired In Fee Simple	Area Acquired By Easement	
Crop land and pasture	175 acres (71 ha)	0	175 acres (71 ha)
Woodland	0	0	0
Land of undetermined or other use (e.g., wetlands, yards, roads, etc.)	0	0	0
TOTAL	175 acres (71 ha)	0	175 acres (71 ha)

1. Indicate the number of farm operations from which land will be acquired.

Total Number of Farm Operations from which land will be acquired:

a. Number of Farm Operations from which 1 acre or less will be acquired: 1
b. Number of Farm Operations from which more than 1 acre but less than 5 acres will be acquired: 10
c. Number of Farm Operations from which more than 5 acres will be acquired: 10

2. Identify and describe the effects to farm operations because of land lost due to the project.

The most substantial impact to farming operations will be the loss of land for agricultural production. Most of the land acquisition will be strip acquisitions which will result in lower production yields for each affected farming operation. Some of the acquisitions would result in field severance. Some of those severances would result in uneconomic remnants too small to farm.

3. Describe changes in access to farm operations caused by proposed action.

The locations of farm access points and field entrances will be determined in a future engineering design phase. All affected farm operations will have adequate access either from an adjacent side road or via special farm crossings on STH 38. Severed parcels would be evaluated to determine whether these would be economically viable to continue farming. If not, the uneconomic remnants would be purchased by WisDOT and access would not be required.

4. Indicate whether a farm operation will be severed because of the project and describe the severance (include area of original farm and the size of any remnant parcels).

The proposed action would result in approximately 12 farm field severances as summarized below.

Original Parcel Size acres (hectare)	Size of Remnant Parcel(s) Acres (hectare)
44 ac (17.8 ha)	34.3 ac (13.9 ha); 0.8 ac (0.3 ha)
28 ac (1.3 ha)	1.7 ac (0.7 ha) ; 1.7 ac (0.7 ha); 16.2 ac (6.6 ha)
18 ac (7.3 ha)	4.0 ac (1.6 ha); 8.8 ac (3.6 ha)
56 ac (22.7 ha)	32.5 ac (13.1 ha); 14.5 ac (5.9 ha)
50 ac (20.2 ha)	34.1 ac (13.8 ha); 6.4 ac (2.6 ha)
16 ac (6.5 ha)	10.7 ac (4.3 ha); 1.8 ac (0.7 ha)
15 ac (6.1 ha)	9.7 ac (3.9 ha); 2.2 ac (0.9 ha)
28 ac (1.3 ha)	8.2 ac (3.3 ha); 10.7 ac (4.3 ha)
18 ac (7.3 ha)	6.1 ac (2.5 ha); 2.0 ac (0.8 ha); 3.1 ac (1.3 ha)
43 ac (17.4 ha)	22.2 ac (9 ha); 3.3 ac (1.3 ha); 2.8 ac (1.1 ha)
50 ac (20.2 ha)	41.7 ac (16.9 ha); 0.4 ac (0.2 ha)
59 ac (23.8 ha)	15.5 ac (6.3 ha); 18.8 ac (7.6 ha); 8.9 ac (3.6 ha)

5. Identify and describe effects generated by the acquisition or relocation of farm operation buildings, structures or improvements, e.g., barns, silos, stock watering ponds, irrigation wells, etc. As appropriate, address the location, type, condition and importance to the farm operation.

Two barns from two separate farm operations would be displaced. However, it is anticipated that a replacement structure could be built on the remaining farm property.

☐ Does Not Apply

6. Describe effects caused by the elimination or relocation of a cattle/equipment pass or crossing. Attach plans, sketches, or other graphics as needed to clearly illustrate existing and proposed location of any cattle/equipment pass or crossing.

There is a cattle pass on the CTH H portion of the Preferred Alternative (from Six Mile Road to Five Mile Road). The status of the cattle pass would be reviewed in a future engineering design phase to determine its status and use, and whether replacement is warranted.

☐ Does Not Apply
☐ Replacement of an existing cattle/equipment pass or crossing is not planned. Explain.
☐ Cattle/equipment pass or crossing will be replaced.
☐ Replacement will occur at same location.
☐ Cattle/equipment pass or crossing will be relocated. Describe.

7. Describe the effects generated by the obliteration of the old roadway.

X Does Not Apply

8. Identify and describe any proposed changes in the land use or secondary development that will affect farm operations and is related to the development of this project.

The Village of Caledonia has developed Neighborhood Master Plans for the entire village. The project corridor falls within the R-1 Neighborhood. The R-1 Neighborhood Master Plan was adopted in June 2004. There is potential for non-agricultural development to occur near the STH 38 corridor. However, this long-range study was undertaken to allow local governments to plan for future development. The Village of Caledonia Plan Commission was involved in the Project Advisory Committee. Unplanned development is not anticipated as a result of the proposed action. Planned development may reduce agricultural land but that conversion is due to local land use planning and zoning decisions and not the proposed STH 38 improvements.

9. Describe any other project-related effects identified by a farm operator or owner which may be adverse, beneficial or controversial.

The owners of a large farm operation from Five Mile Road to Six Mile Road have expressed concern about loss of farmland and field severances due to the Preferred Alternative (Railroad Corridor).

☐ No effects indicated by farm operator or owner.

10. Indicate whether minority population or low-income population farm owners, operators, or workers will be affected by the proposal. (Include migrant workers if appropriate.)

X No effects will accrue to farm owners, operators or workers from minority populations or low-income populations
☐ Yes – Discuss.

11. Describe measures to minimize adverse effects or enhance benefits.

The Preferred Alternative was located along farm property lines to the extent possible and practicable to minimize severances and overall impacts.

WETLANDS IMPACT EVALUATION

DT2099 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Describe proposed work in the wetland(s), e.g., excavation, fill, marsh disposal, other.

The Preferred Alternative would require filling a total of approximately 11.5 acres (4.6 ha) of wetland from 16 wetlands scattered throughout the project corridor. The wetland impacts are based on preliminary wetland boundaries established by WisDOT's wetland consultant who conducted a field assessment in fall, 2005, and on preliminary engineering information available at the corridor study stage. Wetland delineations will be done in a future project phase in conjunction with permit applications under the Clean Water Act.

2. Describe the location of wetland(s) affected by the proposal. Include wetland name(s), if available. (Use maps, sketches, or other graphic aids.)

Affected wetlands are summarized in the following table. The locations are shown on Exhibits 2 and 3.

Wetland Impact Summary

Wetland Number	Location	Type	Impact Acres (Hectares)
Wetland W-1	Adjacent to east and west side of STH 38, north of Hoods Creek Road.	Wet Meadow (M); contiguous. Dominant Plant Species - reed canary grass.	0.03* (0.1 ha)
Wetland W-2	Adjacent to the UPRR, north of the proposed bridge over the UPRR.	Wet Meadow (M); contiguous. Dominant Plant Species -reed canary grass, giant goldenrod, glossy buckthorn, American elm.	0 (0 ha)
Wetland W-3	Along proposed alignment northwest of W-2 and west of the UPRR.	Wet Meadow /Sedge Meadow (M); contiguous. Dominant Plant Species - reed canary grass, hummock sedge.	0.4 (0.2 ha)
Wetland W-4	Along proposed alignment north of W-3.	Wet Meadow (M); contiguous. Dominant Plant Species - reed canary grass, giant goldenrod.	0.2 (0.1 ha)
Wetland W-5	Along proposed alignment north of W-4 and west of the UPRR.	Wet Meadow (M); contiguous. Dominant Plant Species - reed canary grass, giant goldenrod.	0.9 (0.4 ha)
Wetland W-6	Along proposed alignment and south of 5 Mile Road, between UPRR and Nicholson Road.	Wet Meadow (M); contiguous. Dominant Plant Species - reed canary grass, redtop grass.	0.2 (0.1 ha)
Wetland W-7	Along Husher Creek just north of 5 Mile Road and the Nicholson Wildlife Refuge.	Wet Meadow (M); contiguous Dominant Plant Species - reed canary grass, redtop grass.	0.2 (0.1 ha)
Wetland W-8	Along the proposed alignment between the east side of CTH H and Husher Creek, south of CTH G.	Sedge Meadow (M); contiguous. Dominant Plant Species - hummock sedge.	2.7 (1.1 ha)
Wetland W-9	Adjacent to small unnamed tributary to Husher Creek, north of CTH G.	Wet Meadow (M); contiguous. Dominant Plant Species - reed canary grass, redtop grass, giant goldenrod.	1.5 (0.6 ha)
Wetland W-10	In the southeast quadrant of the existing STH 38 and CTH H intersection.	Wet Meadow (M); isolated. Dominant Plant Species - reed canary grass, giant goldenrod.	0.3 (0.1 ha)

Wetland Impact Summary (continued)

Wetland W-11	Located on the east and west sides of STH 38, north of STH 38/6 Mile Road.	Wet Meadow (M); contiguous. Dominant Plant Species - reed canary grass, giant goldenrod, smooth brome.	0.4 (0.2 ha)
Wetland W-12	Located on both the east and west sides of STH 38, just south of Seven Mile Road.	Wet Meadow/Sedge Meadow (M); contiguous. Dominant Plant Species - reed canary grass, hummock sedge, smooth brome.	1.4 (0.6 ha)
Wetland W-13	Adjacent to Husher Creek, north of 7 Mile Road and west of STH 38.	Riparian Forest (RPF); ADID wetland; contiguous. Dominant Plant Species - American elm, nut sedges, beggarticks.	2.1 (0.9 ha)
Wetland W-14	Adjacent to east side of STH 38, just north of the entrance drive to Jellystone Park campground.	Wet Meadow (M); isolated. Dominant Plant Species - reed canary grass.	0.1 (0.04 ha)
Wetland W-15	Adjacent to the Root River at STH 38.	Riparian Forest (RPF); ADID wetland; contiguous. Dominant Plant Species - Silver maple, river bank grape, nut sedges.	0.9 (0.4 ha)
Wetland W-16	Adjacent to the west side of STH 38, just north of Elm Road.	Wet Meadow (M); isolated. Dominant Plant Species - reed canary grass, redtop grass, giant goldenrod.	0.4 (0.2 ha)
Wetland W-17	Adjacent to the east side of STH 38 at Oak Hills Golf Course.	Wet meadow (M); contiguous. Dominant Plant Species - reed canary grass.	0.04* (0.02 ha)
		Subtotal ADID Wetlands	**3.0 (1.2 ha)**
		Total Wetland Impacts	**11.5 (4.6 ha)**

* Rounding results in values that are less than a tenth of an acre/hectare and are therefore shown to two decimal places.

3. This wetland is:

X **Isolated from stream, lake or other surface water body.**

Wetland W-10, W-14, and W-16.

☐ **Not contiguous, but within 5-year floodplain.**

X **Contiguous (in contact) with a stream, lake, or other water body**.
Identify corresponding stream, lake, or other water body by name or town-range location:

W-1, W-2, W-3, W-4, W-5, W-6 and W-17 are all contiguous to unnamed tributaries of the Root River.
Wetland W-7 and W-8 is contiguous to Husher Creek.
Wetland W-9, W-11 is contiguous to unnamed tributaries of Husher Creek.
Wetland W-12 is contiguous to Husher Creek
Wetland W-13 is contiguous to Husher Creek.
Wetland W-15 is contiguous to the Root River.

4. List any observed or expected waterfowl and wildlife inhabiting or dependent upon the wetland. (List should include both permanent and seasonal residents).

The State of the Root/Pike River Basin Report (DNR May 2002) provides a listing of waterfowl and wildlife that can be expected to inhabit wetlands in the project area.

Wetland Type	Birds	Wildlife
Riparian Forest	Cerulean warbler, Acadian flycatcher, prothonotary warbler, red-shouldered hawk, belted kingfisher, green heron, spotted sandpiper, wood duck, mallard duck, flicker, pileated woodpecker, hooded mergansers, and barred owls.	White-tailed deer, muskrat, mink, raccoons, opossums, and beaver.
Shrub Scrub	Grouse, songbirds	Small mammals
Wet Meadow	Canada geese, great blue heron, green-back heron, red-wing blackbird, common yellowthroat.	Muskrat and mink.

5. Are there any known endangered or threatened species affected by the project?

☐ No

X Yes - Identify the species and indicate whether it is on Federal or State lists.

Information provided by the U.S. Fish and Wildlife Service indicates there are no federally listed threatened or endangered species in the project's area of potential effect (see December 29, 2003 letter in Appendix A). The Fish and Wildlife Service recommends that updated coordination be done in a future project phase to ensure that there have been no changes in the status of federally listed species or their critical habitat.

Information provided by the DNR Bureau of Endangered Resources (see September 29, 2005 letter in Appendix A) indicates the following state listed species could potentially be present in the project's area of potential effect:

- Bluestem goldenrod—endangered plant
- Forked aster—threatened plant
- American gromwell—special concern plant
- Reflexed trillium—special concern plant
- Smooth black-haw—special concern plant
- Waxleaf meadowrue—special concern plant

Based on the habitat requirements for these plant species and the location of the Preferred Alternative, a preliminary field assessment was done to determine the potential for suitable habitat. The preliminary field assessment was done in conjunction with the preliminary wetland boundary determinations for the Preferred Alternative. The field assessment indicated the main area in the project corridor that has the potential for suitable habitat is the Root River floodplain crossing. The Root River floodplain has a high diversity of plant species and may have suitable habitat for the Bluestem goldenrod (endangered), Forked aster (threatened) and Reflexed trillium (special concern). The Preferred Alternative crossing of the UP Railroad could also provide potential habitat for the Waxleaf meadowrue (special concern), although this area is degraded and has several invasive plant species.

☐ Section 7 coordination has been completed with the U.S. Fish & Wildlife Service. Describe mitigation required to protect the federally listed endangered species.

Not applicable.

X Coordination with DNR has been completed. Describe mitigation required to protect the State listed species.

Initial coordination has been completed. Updated coordination with DNR in a future project phase will be done to determine whether there have been any changes in potential habitat areas and whether more detailed field inventories would be needed to determine the presence or absence of these species, and whether a mitigation plan would be required.

6. FHWA Wetland Policy

☐ Not Applicable - Explain

X Individual Wetland Finding Required - Summarize why there are no practicable alternatives to the use of the wetland.

The No Build Alternative would avoid wetland impacts, but would not meet project purpose and need. Due to the extent and scattered location of wetlands throughout the STH 38 project corridor it is not possible to completely avoid wetland impacts. All of the Build Alternatives would affect wetland. The Preferred Alternative would have the same wetland impacts as the other reasonable Build Alternatives that were considered (see page 7 for more information). There are no practicable alternatives to the use of wetland. Wetland impacts will be fully compensated in accordance with the WisDOT/interagency Wetland Mitigation Banking Technical Guideline.

☐ Statewide Wetland Finding. **NOTE: All must be checked for the Statewide Wetland Finding to apply.**

- ☐ Project is either a bridge replacement or other reconstruction within 0.5 km (0.3 mile) of the existing location.
- ☐ The project requires the use of 3 hectares (7.4 acres) or less of wetlands.
- ☐ The project has been coordinated with the DNR and there have been no significant concerns expressed over the proposed use of the wetlands.

7. Erosion control or stormwater management measures that will be used to protect the wetland are shown on form (either or both)

X DT2080, Erosion Control Impact Evaluation

X DT2076, Stormwater Impact Evaluation

☐ Neither form - Briefly describe measures to be used

8. Section 404 Permit

☐ Not Applicable - No fill to be placed in wetlands

X Applicable - Fill will be placed in wetlands.
Indicate area of wetlands filled 11.5 Acres (4.6 Hectares)

X Individual Section 404 Permit required

☐ General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404 Compliance.
Indicate which GP or LOP required.

☐ Non-Reporting GP ☐ Provisional GP
☐ Provisional LOP ☐ Programmatic GP

9. Section 10 Waters. For navigable waters of the United States (Section 10) indicate which Nationwide Permit is required.

Not applicable.

10. Identify wetland type(s) that will be filled or converted to another use.

Use the DOT Wetland Bank System. (See FDM Procedure 24-5-10, Figure 2.) If the National Wetlands Inventory (NWI) or Wisconsin Wetlands Inventory (WWI) are used to identify the types of wetlands, translate them to the DOT Wetland Bank System, wetland types.

Approximate areas of wetlands filled or converted by type.

Wetland Type	Area of Wetland Type Acres (Hectares)
Wet Meadow (M)	8.5 (3.4 ha)
Riparian Forested (RPF)	3.0 (1.2 ha)

11. Wetland Mitigation
(NOTE: Avoidance and minimization mitigation are required.)

Wetland avoidance

a. Describe methods used to avoid the use of wetlands such as using a lower level of improvement or placing the roadway on new location, etc.

Due to the proximity of the wetlands to the existing roadway, it is not possible to completely avoid wetland impacts. However, a number of alignment alternatives were reviewed prior to the selection of the proposed alignment. The impacts of these alignments on the natural and man-made environment were considered along with determining whether the alignments would meet project purpose and need. Alignments with higher wetland impacts were eliminated, even though they met the stated purpose and need for an improved STH 38.

b. Indicate the total area of wetlands avoided

The location of the Preferred Alternative (Railroad Corridor) crossing of the Union Pacific Railroad was moved to the south to avoid 0.8 acres (0.3 hectare) of wetland.

Minimize the amount of wetlands affected

a. Describe methods used to minimize the use of wetlands such as steepening of side slopes or use of retaining walls, equalizer pipes, upland disposal of hydric soils, etc.

Design refinements to minimize wetland impacts will be evaluated in a future engineering phase when more detailed information is available regarding roadway dimensions/profiles, slope intercepts, and other factors. Measures to minimize impacts will include keeping the roadway slopes as steep as practicable, installing equalizer pipes where needed to maintain wetland flow and hydrology, disposal of any excavated wetland soil on the new roadway slopes or in an upland area, and strict temporary and permanent erosion control such as silt fence, ditch checks, geotextile fabric, and erosion bales to minimize siltation into adjacent wetlands.

b. Indicate the total area of wetlands saved through minimization.

A preliminary review of locations where the alignment can be narrowed indicates approximately 1.4 acres (0.6 hectare) of wetland impacts were saved through minimization.

Compensation for unavoidable loss

Is compensation of unavoidable wetland loss required?

X Yes
☐ No. Explain.

Because the proposed STH 38 improvements will not be implemented for several years, a specific wetland compensation plan will be developed in a future engineering phase in consultation with state and federal review agencies. WisDOT and DNR discussed the potential for on-site wetland mitigation; however, if it is determined impracticable, then wetland compensation would be accomplished at an established WisDOT wetland mitigation bank site.

Type and amount of compensation

Unavoidable wetland loss will be fully compensated in accordance with WisDOT's *Wetland Mitigation Banking Technical Guideline*. The final decision on wetland mitigation will be made by WisDOT in the project's engineering design phase. If a nearby wetland restoration site is not feasible, wetland impacts would be mitigated at an established wetland mitigation bank. The type and amount of replacement wetland would be established by WisDOT in consultation with DNR and the U.S. Army Corps of Engineers during Section 404 permit applications in a future project phase.

A very preliminary mitigation site search has been conducted by review of aerial maps indicates the presence of a potential mitigation site near the existing STH 38 corridor. However, to date no exploratory field work has been done nor has the property owner been contacted. All mitigation options are dependent on a willing seller.

The final wetland replacement ratio would be established based on criteria in the Wetland Mitigation Banking technical Guideline. Factors such as proximity to the project area and types of wetland available at a nearby wetland restoration site or an established wetland bank site versus those lost in the project corridor would influence the replacement ratio.

The U.S. Environmental Protection Agency (USEPA) in cooperation with the U.S. Army Corps of Engineers, implemented an Advanced Identification Program (ADID) to identify wetlands that are generally suitable or not suitable for discharge of fill material. Within the project area ADID wetlands are those mapped wetlands that occur within the boundaries of the primary environmental corridor adopted in 1985. In southeastern Wisconsin, advanced identification of such wetlands was undertaken in consultation with SEWRPC and the DNR to redirect development outside of primary environmental corridors.

At the Federal level, the classification is advisory and does not constitute either a permit approval or denial. In Wisconsin, however, ADID wetlands are part of a special category of wetlands to be protected, "wetlands in areas of special natural resource interest" (NR 103.04, Wis. Adm. Code.) Fill into these wetlands is generally not in conformance with the Clean Water Act's Section 404 (b)(1) guidelines; however, fill is justifiable when there is no feasible alternative. The WDNR and WisDOT have a wetland compensatory mitigation agreement which recognizes that the loss of ADID wetlands may be unavoidable in transportation projects. When fill is justifiable, the Wisconsin Banking Technical Guidelines allow a discretionary increase in the compensatory ratio due to the red flag nature of these wetlands. A discretionary 0.5 increase in the ratio is usually included in the ratio of debit for wetlands associated with this project.

STREAMS AND FLOODPLAINS IMPACT EVALUATION

DT2097 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Stream Name	**2. Stream Location**
Root River Husher Creek (2 crossings)	Root River T4N, R22E, Section 4 and 5; Village of Caledonia, WI Husher Creek T4N, R22E, Section 8; Village of Caledonia, WI T4N, R22E, Section 16; Village of Caledonia, WI
3. Stream Type (Indicate Stream Class, if known) ☐ Unknown X Warm water (both streams) ☐ Trout-Class ☐ Wild and Scenic River	**4. Size of Upstream Watershed Area** X Permanent Flow (year-round) Both streams have permanent flow; upstream watershed area for Root River is 197 square miles; information not available for Husher Creek ☐ Temporary Flow (dry part of year)
5. Stream Characteristics **a. Substrate** ☒ Sand ☒ Silt ☐ Clay ☐ Cobbles ☐ Other-describe:	
b. Average Water Depth Root River: approximate average depth is 4 feet (1.2 meters) Husher Creek: approximate average depth is 0.5 to 2 feet (0.15 to 0.6 meters)	**c. Vegetation in Stream** X Absent ☐ Present - If known describe:
d. Identify Fish Species Present Fish species in the Root River watershed include the common shiner, bluntnose minnow, black bullhead, carp, fathead minnow, central mudminnow, creek chub, white sucker, large mouth bass, northern pike, and green sunfish.	**e. If water quality data is available, include this information (e.g., DNR or local discharger might have such records).** According to Milwaukee Metropolitan Sewerage District data from a monitoring station upstream of the proposed crossing, the Root River meets warm water quality standards for: dissolved oxygen at least 85% of the time, total phosphorous less than 50% of the time, total nitrogen less than 50% of the time, and fecal coliform less than 50% of the time. Water quality data not available for Husher Creek

6. Are there any known endangered or threatened species affected by the project?

X No
☐ Yes - Identify the species and indicate whether it is on Federal or State lists.

☐ Section 7coordination has been completed with the U.S. Fish & Wildlife Service. Describe mitigation required to protect the federally listed endangered species.

Not applicable.

X Coordination with DNR has been completed. Describe mitigation required to protect the State listed species.

Information provided by the DNR Bureau of Endangered Resources did not indicate any threatened, endangered or special concern fish species in the streams crossed by the proposed STH 38 improvements (see September 29, 2005 letter in Appendix A).

7. If bridge replacement, are migratory bird nests present?

- X No
- ☐ Yes – Identify Bird Species present
  Estimated number of nests is

8. Is a U.S. Fish & Wildlife Depredation Permit required to remove swallow nests?

- X Not Applicable
- ☐ No - Describe mitigative measures.
- ☐ Yes

9. Describe land adjacent to stream. If wetland, give type.

Land adjacent to the Root River is floodplain, wetland, and Primary Environmental Corridor; the wetland type is floodplain forest. Land adjacent to the first Husher Creek crossing is floodplain, wetland, and Primary Environmental Corridor; the wetland type is floodplain forest. Land adjacent to the second Husher Creek crossing is farmland, wetland; the wetland type is fresh wet meadow.

10. Identify upstream or downstream dischargers or receivers (if any) within 0.5 miles (0.8 kilometers) of the project site.

Discharge in the Root River and Husher Creek watersheds is primarily from overland runoff. Husher Creek flows into the Root River approximately 0.4 miles (0.7 kilometers) upstream of the STH 38 crossing.

11. Section 404 Permit

- ☐ Not Applicable - No fill to be placed in wetlands.
- X Applicable - Fill will be placed in wetlands.
  Indicate area of wetlands filled: 11.5 acres (4.6 ha) for Preferred Alternative
- X Individual Section 404 Permit required
- ☐ General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404.
  Indicate which GP or LOP is required.

  - ☐ Non-Reporting GP
  - ☐ Provisional GP
  - ☐ Provisional LOP
  - ☐ Programmatic GP

12. Section 10 Waters
For navigable waters of the United States (Section 10) indicate whether the U.S. Coast Guard has been notified?

Not applicable.

13. Describe proposed work in, over, or adjacent to stream. Indicate whether the work is within the 100-year floodplain and whether it is a crossing or a longitudinal encroachment. (Note: U.S. Coast Guard must be notified when Section 10 waters are affected by a proposal.)

The proposed project involves the following stream crossing aspects:

- Replace or widen the existing structure over the Root River just south of the Milwaukee-Racine County line (see Exhibit 2) to accommodate the new 4-lane roadway. The existing bridge (B-51-0074) is a 3-span concrete slab structure with an overall length of approximately 118 feet (36 meters).
- Replace or widen the existing structure over Husher Creek about midway between Seven Mile Road and Forest Hills Road (see Exhibit 2) to accommodate the new 4-lane roadway. The existing bridge (B-51-0004) will be replaced in 2009 with a twin cell box culvert.
- Construct a new structure to carry the new 4-lane highway over Husher Creek just north of Five Mile Road (see Exhibit 3). There is no existing structure at this location.

The proposed STH 38 improvements require crossings of the Root River and Husher Creek 100 year-floodplains. Floodplain/wetland fill would be required for the new roadway and structures. Structure size and types will be determined in a future engineering design phase in consultation with DNR.

South of Seven Mile Road, Husher Creek parallels the west side of STH 38 and serves as the roadway ditch. It is proposed to widen STH 38 to the west at this location to avoid 3 residential displacements and 3 business displacements that would be required by widening east. Widening west requires realignment of approximately 1,600 feet (488 meters) of Husher Creek. This realignment could ultimately result in improved water quality by separating the stream from the roadside ditch and providing a buffer area between the new roadway and the realigned stream. The realignment would be coordinated with DNR in a future engineering phase to determine the appropriate configuration, depth, flow, and other characteristics for the new stream thread.

14. Discuss the effects of any backwater that would be created by the proposed action. Indicate whether the proposed activities would be consistent with NR 116, the National Flood Insurance Program, and Governor's Executive Order #73.

Structures will be designed in accordance with the requirements of Wisconsin Administrative Code Chapter NR 116—*Wisconsin's Floodplain Management Program* and Chapter NR 320—*Bridges in or over Navigable Waterways*. Structure sizing will be evaluated using HEC-2, WWPRO, or other computer analysis program that may be applicable in the engineering design phase to ensure that any increase in backwater would be less than 0.01 foot (3 mm). The proposed action would be consistent with NR 116, the National Flood Insurance Program and Governor's Executive Order #73.

15. Describe and provide the results of coordination with any floodplain zoning authority.

Coordination with the applicable floodplain zoning authority will be done in a future engineering design phase when more detailed information is available regarding structure sizing and type.

16. Would the proposal or any changes in the design flood, or backwater cause any of the following impacts?

- X No impacts would occur.
- ☐ Significant interruption or termination of emergency vehicle service or a community's only evacuation route.
- ☐ Significant flooding with a potential for property loss and a hazard to life.
- ☐ Significant impacts on natural floodplain values such as flood storage, fish or wildlife habitat, open space, aesthetics, etc.

17. Discuss existing or planned floodplain use and briefly summarize the project's effects on that use.

Floodplain adjacent to the Root River is presently being preserved as open space, wetland, and flood storage area. Planned use is the same. Based on the public ownership of Root River floodplain, the proposed project will not affect existing or planned floodplain use beyond the direct impact of the project.

18. Discuss probable direct impacts to water quality within the floodplain, both during and after construction. Include the probable effects on plants, animals, and fish inhabiting or dependent upon the stream.

Exposed soils during and after construction has the potential for erosion into environmentally sensitive areas such as streams and wetlands. Soil types, existing drainage patterns, terrain and the extent and duration of highway construction influence the degree to which erosion could occur at a particular location. Use of strict erosion control measures before, during and after construction will minimize the potential for erosion impacts at the Root River and Husher Creek crossings, wetlands and environmental corridors.

19. Describe proposed measures to minimize adverse effects or to enhance beneficial effects.

The project will be designed and constructed in accordance with the following guidelines and regulations for minimizing the potential for water quality impacts:

- WisDOT Facilities Development Manual, Chapter 10—*Erosion Control and Storm Water Quality*
- Wisconsin Administrative Code Chapter TRANS 401—*Construction Site Erosion Control and Storm Water Management Procedures for Department Actions*
- WisDOT/DNR Cooperative Agreement Amendment—*Memorandum of Understanding on Erosion Control and Storm Water Management*

During construction the amount of area impacted by construction equipment will be minimized, especially in areas in or adjacent to streams, wetlands and floodplains. Standard construction site best management practices (BMPs) will be implemented. These could include silt fence, ditch checks, and construction sequencing to minimize the length of time soil is exposed. Additional BMPs near sensitive areas such as wetlands, streams, floodplains and environmental corridors could include vegetated swales, sediment traps, grass buffers, riprap, and erosion matting.

After construction, additional BMPs that minimize stormwater impacts would be implemented. These could include catch basins, vegetated swales, infiltration/detention areas, seeding and mulching.

DNR has recommended several measures as summarized below to minimize adverse effects to fishery resources and water quality (see January 25, 2006 DNR letter in Appendix A):

- No in-stream construction should be done in the Root River from March 1 to June 15 and in Husher Creek from April 1 to June 1.

- Demolition of existing bridges should be done in a manner that does not allow material to enter the waterway. Unimpeded natural stream flow should be maintained during bridge demolition and construction. Turbidity barriers should be used to isolate any materials from active stream flow areas.

- Any culvert replacements should be done under dry streambed conditions with stream flow diverted around the construction site. A non-erosion prone method for maintaining passage for fish and aquatic species should be used. The culvert invert should be placed below the streambed elevation and a gravel substratum provided through the structure.

- If site dewatering is required, sediment-laden water should be pumped into a sediment basin in an upland area prior to discharge to a wetland or waterway.

- Excess fill or disposal should be stockpiled in an upland area away from wetlands, storm sewer inlets, floodplains and waterways. Stockpiles should also be protected against erosion and dust emissions.

- Appropriate erosion control measures should be applied to any borrow or fill areas during and after construction. Such sites should also be property restored and protected against erosion.

- Measures to control fugitive dust emissions should be taken during construction and any grinding slurry should be contained to prevent drainage to wetlands, waterways or storm sewer inlets.

20. Erosion control or stormwater management measures which will be used to protect the stream are shown on form DT2080, Erosion Control Impact Evaluation and form DT2076, Stormwater Impact Evaluation.

☒ Yes
☐ No - Briefly describe measures to be used such as sheet piling, cofferdam, turbidity barrier, barges, construction blackout window, etc.

UPLAND HABITAT IMPACT EVALUATION

DT2098 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Give a brief description of the upland habitat area. Include prominent plant community(ies) at the project site (list vegetation with a brief description of each community type if more than one present).

Most of the land along the Preferred Alternative corridor has been disturbed by agricultural activities or residential development and does not have notable areas of remaining upland habitat except for small and scattered grassy and wooded areas. Zirbes Woods, east of STH 38 between Six Mile and Seven Mile Roads, is a SEWRPC Natural Area and is also part of DNR's Managed Forest Law program. It is a small but relatively undisturbed mesic woods dominated by basswood, white ash, red oak and sugar maple with a rich ground flora. The Preferred Alternative avoids impacts to Zirbes Woods.

The Nicholson Wildlife Refuge between Five Mile Road and Six Mile Road contains small areas of upland habitat, much of which is farmed. The Preferred Alternative avoids impacts to the Nicholson Wildlife Refuge.

2. Identify and describe any observed or expected wildlife associations with the plant community(ies).

Wildlife associated with the upland habitat areas is expected to include red fox, white tailed deer, raccoon, opossum, pheasant, squirrels, rabbits, and other small mammals and songbirds.

3. Identify the dominant plant community(ies) and estimate existing and proposed area of each dominant plant community to be altered.

The dominant upland plant communities remaining along the Preferred Alternative corridor include grasses, shrubs, and scattered trees. The Preferred Alternative would impact approximately 0.7 acres (0.3 ha) of woodland on the west side of STH 38 just north of Six and a Half Mile Road.

4. Are there any known endangered or threatened species affected by the project?

X No
☐ Yes - Identify the species and indicate whether it is on Federal or State lists.

No protected species associated with upland habitat areas were identified by the U.S. Fish and Wildlife Service or DNR. Protected species associated with wetland and floodplain areas are discussed in the Wetland factor sheet (See DNR, Sept. 29, 2005 and USFWS, January 7, 2004 response letters in Appendix A).

☐ Section 7 coordination has been completed with the U.S. Fish & Wildlife Service. Describe mitigation required to protect the federally listed endangered species.

☐ Coordination with DNR has been completed. Describe mitigation required to protect the State listed species.

5. Describe the nature of proposed work in the upland habitat area (e.g., grading, clearing, grubbing, etc.).

The wooded area on the west side of STH 38 just north of Six and a Half Mile Road would be affected by clearing, grubbing and grading for the new roadway.

6. Identify and describe any known wildlife or waterfowl use areas or movement corridors that would be severed or eliminated by the proposed action. Include a discussion of the proposed action's effects upon the areas or corridors.

No known wildlife movement corridors or waterfowl use areas would be severed or eliminated by the proposed action.

7. Discuss other direct impacts on wildlife and estimate significance.

Loss of the wooded area north of Six and a Half Mile Road would reduce wildlife habitat for those species that use the area for food and cover.

8. Identify and discuss any probable secondary impacts which may be expected due to the project.

The Preferred Alternative is not expected to cause unplanned secondary impacts with respect to existing or planned land use and development in the STH 38 corridor because the Preferred Alternative was developed with input and support of the Caledonia Planning Commission, staff and elected officials. Access control along the new highway in conjunction with local planning would preclude development from occurring in areas that are not already planned for future development.

9. Describe measures to minimize adverse effects or enhance beneficial effects.

Measures to minimize adverse impacts include the use of effective erosion control, revegetation as soon as possible after construction, and maintenance practices that provide wildlife habitat by allowing successional layers of vegetation to establish outside the highway safety clear zones.

EROSION CONTROL

DT2080 2005

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Give a brief description of existing and proposed slopes in the project area, both perpendicular and longitudinal to the project. Include both existing and proposed slope length, percent slope and soil types.

Terrain along the Preferred Alternative corridor is flat to gently rolling. Roadway side slopes along existing STH 38 are generally 3:1 to 4:1 steepness but vary from approximately 2.5:1 to 6:1 steepness (perpendicular to the roadway). Proposed roadway side slopes will generally be 6:1 steepness (perpendicular to the roadway) within the clear zone and vary from 2.5:1 to 4:1 outside the clear zone. Soils along the Preferred Alternative corridor are in the Hebron-Montgomery-Aztalan and Boyer-Granby associations (Racine County Agricultural Soil and Erosion Control Plan, SEWRPC Community Assistance Planning Report No. 160,. 1988). The Hebron-Montgomery-Aztalan soils are well drained to poorly drained with a loam to silty clay subsoil underlain by clayey to loamy lacustrine and outwash material on hills, knobs and floodplains. The Boyer-Granby soils are well drained to very poorly drained with a loam to sand subsoil underlain by sandy glacial outwash on ridges and knobs and in drainageways and depressions.

2. Indicate all natural resources to be affected by the proposal that are sensitive to erosion, sedimentation, or waters of the state quality degradation and provide specific recommendations on the level of protection needed.

☐ No - There are no sensitive resources affected by the proposal.
X Yes - Sensitive resources exist in or adjacent to the area affected by the project.

X River/stream	X Wetland	☐ Lake	X Endangered species habitat (potential)
☐ Other – Describe			

3. Are there circumstances requiring additional or special consideration?

X No additional or special circumstances are present.
☐ Yes - Additional or special circumstances exist. Indicate all that are present.

☐ Areas of groundwater discharge	☐ Areas of groundwater recharge (fractured bedrock, wetlands, streams)
☐ Long or steep cut or fill slopes	☐ Overland flow/runoff
☐ Other – Describe any unique or atypical erosion control measures to be used to manage additional or special circumstances.	

4. Describe overall Erosion Control strategy to minimize adverse effects and/or enhance beneficial effects.

Guidelines and regulations for minimizing the potential for erosion and sedimentation for highway projects include the WisDOT Facilities Development Manual, Chapter 10, *Erosion Control and Storm Water Quality*; Wisconsin Administrative Code Chapter TRANS 401, *Construction Site Erosion Control and Storm Water Management Procedures for Department Actions*; and the WisDOT/DNR Cooperative Agreement Amendment, *Memorandum of Understanding on Erosion Control and Storm Water Management.* Key concepts are summarized as follows.

Basic Principles and Best Management Practices

- The proposed improvements will be planned to fit topography, soils, drainage patterns, and natural vegetation to the extent practicable.
- The size of exposed areas at any one time and the duration of exposure will be minimized.
- Control measures will be used to prevent erosion and sedimentation in sensitive areas (proper design of drainage channels with respect to width, depth, gradient, side slopes, and energy dissipation); protective groundcover (vegetation, mulch, erosion mat, or riprap); diversion dikes and intercepting embankments to divert sheet flow away from disturbed areas; and sediment control devices (retention/detention basins, ditch checks, erosion bales, and silt fence).
- Disturbed areas will be protected from off-site runoff and sediment will be prevented from leaving the construction site.
- Runoff velocities will be kept low by maintaining short slope lengths, low gradients, and vegetative cover.
- Disturbed areas will be stabilized as soon as practicable (temporary vegetation, mulch, stabilizing emulsions).

Geometric Design Features and Erosion Control Facilities

- Smooth grade lines with gradual changes will be used.
- Natural and existing drainage patterns will be preserved to the extent possible.
- Stabilized slopes, soil, and stream banks will be left undisturbed where possible.
- Trees and shrubs will be preserved, and over-clearing will be prevented or minimized.
- Irregular ditch profiles and steep gradients will be avoided where possible.
- Vegetated ditches and drainage channels with wide, rounded cross sections will be used where applicable.
- Culverts will be located and aligned to avoid erosion at the outlet and inlet.
- An undisturbed buffer will be left between disturbed soil and sensitive areas where possible.
- The soil surface will be protected by using permanent and temporary erosion control measures such as seeding and sodding, mulch, erosion mat, and riprap.
- Sediment will be removed and velocities reduced by using erosion bales, silt fence, stone or rock ditch checks, sediment traps, and basins.

Erosion Control Implementation Plan

The construction contractor is required to prepare an Erosion Control Implementation Plan that includes all erosion control commitments made during a future engineering phase. The construction plans and contract special provisions must include the specific erosion control measures agreed on by WisDOT in consultation with DNR who reviews the Erosion Control Implementation Plan.

5. Erosion control measures reached consensus with the appropriate authorities as indicated below.

☐ WDNR	☐ County Land Conservation Department	☐ Native American Tribe
☐ Army Corp of Engineers		

(All Erosion Control measures (i.e., the Erosion Control Plan) shall be coordinated through the DOT-DNR liaison process and TRANS 401 except when Tribal lands of Native Americans are involved. DNR's concurrence is not forthcoming without an Erosion Control Plan. In addition, TRANS 401 requires the contractor prepare an Erosion Control Implementation Plan (ECIP), which identifies timing and staging of the project's erosion control measures. The ECIP should be submitted to the WDNR and to WisDOT 14 days prior to the preconstruction conference (Trans 401.08(1)) and must be approved by WisDOT before implementation. On Tribal lands, coordination for 402 (erosion) concerns is either to be coordinated with the tribe affected or with the U.S. Environmental Protection Agency (EPA). EPA or the Tribes have the 401water quality responsibility on Trust lands. Describe how the Erosion Control/Stormwater Management plan can be compatible.)

Due to the long-term construction schedule for the proposed STH 38 improvements, engineering information at the corridor study stage is insufficient to develop specific erosion control measures. This will be done in a future engineering phase and will be coordinated with DNR and appropriate local government officials.

6. Identify the temporary and permanent erosion control measures to be utilized on the project. Consult the FDM Chapter 10 and the Products Acceptability List (PAL).

Specific erosion control measures will be determined in consultation with DNR in a future engineering design phase. Possible measures could include the following:

X Minimize the amount of land exposed at one time	☐ Detention basin
X Temporary seeding	X Vegetative swales
X Silt fence	☐ Pave haul roads
X Ditch checks	X Dust abatement
☐ Erosion or turf reinforcement mat	X Rip rap
X Ditch or slope sodding	X Buffer strips
☐ Soil stabilizer	☐ Dewatering – Describe method
X Inlet protection	☐ Silt screen
X Turbidity barriers	☐ Temporary diversion channel
☐ Temporary settling basin	X Permanent seeding
X Mulching	☐ Other - Describe

DNR has recommended several erosion control measures as summarized below (see January 25, 2006 DNR letter in Appendix A):

Ditch checks constructed of washed stone should be used in ditches and strategic locations to protect waterways.

Silt fence should be installed between the construction work sites and any sensitive areas such as wetlands and waterways.

Siltation basins and other methods to control erosion such as sodding, seeding and mulching, erosion mat and riprap should be used as needed and as appropriate.

STORMWATER IMPACT EVALUATION

DT2076 2005

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

Surrounding land use and a discussion of adopted plans are described on DT2094, Environmental Evaluation of Facilities Development Actions.

1. Indicate whether the affected area may cause a discharge or will discharge to the waters of the state (Trans 401.03). Special consideration should be given to areas that are sensitive to water quality degradation. Provide specific recommendations on the level of protection needed.

☐ No water special natural resources are affected by the proposal.
X Yes – Water special natural resources exist in the project area.

X River/stream	X Wetland	☐ Lake	X Endangered species habitat (potential)
☐ Other – Describe			

2. Indicate whether circumstances exist in the project vicinity that require additional or special consideration, such as an increase in peak flow, total suspended solids (TSS), or water volume.

☐ No additional or special circumstances are present.
X Yes - Additional or special circumstances exist. Indicate all that are present.

☐ Areas of groundwater discharge	☐ Areas of groundwater recharge	☒ Stream relocations
☐ Overland flow/runoff	☐ Long or steep cut or fill slopes	☐ High velocity flows
☐ Cold water stream	☐ Impaired waterway	☐ Large quantity flows
☐ Exceptional/outstanding resource waters	☐ Increased backwater	
☐ Other – Describe any unique, innovative, or atypical stormwater management measures to be used to manage additional or special circumstances.		

3. Describe the overall stormwater management strategy to minimize adverse effects and enhance beneficial effects.

Guidelines and regulations for highway project stormwater management include the WisDOT Facilities Development Manual, Chapter 10, *Erosion Control and Storm Water Quality*; Wisconsin Administrative Code Chapter TRANS 401, *Construction Site Erosion Control and Storm Water Management Procedures for Department Actions*; and the WisDOT/DNR Cooperative Agreement Amendment—*Memorandum of Understanding on Erosion Control and Storm Water Management.* The overall stormwater management strategy for the proposed improvements to STH 38 would include the following:

Basic Principles and Best Management Practices

- Limit disturbance of natural drainage features and vegetation.
- Prior to land disturbance, prepare and implement an approved erosion and sediment control plan.
- Protect areas that provide important water quality benefits and/or that are susceptible to erosion and sediment loss.
- Reduce direct discharge of highway runoff into streams and wetlands by having it flow through a filter strip, vegetated swale, or detention/retention facility.
- Reduce runoff velocities by running storm water in shallow, flat-bottom swales, or by using weirs or other barriers to dissipate high velocities.

Geometric Design Features/Storm Water Facilities

- Vegetated grass strips or grass swales adjacent to the highway could remove about 65 percent of suspended sediments.
- Infiltration trenches that consist of shallow ditches backfilled with stone, could remove about 75 percent of suspended sediments.
- Wet detention ponds that temporarily store runoff and release it at a controlled rate could remove about 60 percent of suspended sediments.
- Filtration basins and sand filters that are lined with filter media such as sand or gravel could remove about 80 percent of suspended sediments.

4. Indicate how the stormwater management plan will be compatible with fulfilling Trans 401 requirements.

Due to the long-term construction schedule for the proposed STH 38 improvements, engineering information at the corridor study stage is insufficient to develop a specific stormwater management plan. This will be done in a future engineering phase and coordinated with DNR and appropriate local government officials. The stormwater management plan will be developed in view of the overall stormwater strategies discussed in item 3.

5. Identify the stormwater management measures to be utilized on the project.

Specific stormwater management measures will be determined in consultation with DNR in a future engineering design phase. Possible measures could include the following:

X Swale treatment (parallel to flow) Trans 401.106(10)

X Vegetated filter strips (perpendicular to flow)

☐ Distancing outfalls from waterway edge

☐ Constructed stormwater wetlands

☐ In-line storm sewer treatment, such as catch basins, non-mechanical treatment systems

X Detention/retention basins - Trans 401.106(6)(3)

☐ Buffer areas - Trans 401.106(6) - Describe

☐ Infiltration - Trans 401.106(5)

☐ Other

6. Indicate whether any Drainage District may be affected by the project.

☐ No – There will be no effects to a recognized drainage district.

X Yes - Identify the affected drainage district.

The affected drainage district is the Caledonia drainage district.

Has initial coordination with drainage board been completed?

☐ No

X Yes - Discuss results.

The Caledonia Village Engineer is the drainage district representative and has been involved in the STH 38 Corridor Study.

Has initial coordination with Department of Agriculture, Trade and Consumer Protection (DATCP) been completed?

☐ No

X Yes - Discuss results.

DATCP has been notified about the proposed project and will prepare an Agricultural Impact Statement in a future engineering design phase.

7. Indicate whether the project is within DOT's Phase I or Phase II stormwater management area. (NOTE: See Procedure 20-30-1, Figure 1, Attachment A4 the Cooperative Agreement between the Wisconsin Departments of Transportation and Natural Resources. Contact Bureau of Equity and Environmental Services Stormwater Engineer or the District Environmental Coordinator for more details on the following areas.)

X No - The project is outside of WisDOT's stormwater management area.
☐ Yes - The project affects one of the following regulated by a WPDES stormwater discharge permit issued by the DNR.

☐ WisDOT storm sewer system located within municipalities with populations > 100,000.
☐ WisDOT storm sewer system located within a notified owner of municipal separate storm sewer systems.
☐ Urbanized areas as defined by the U.S. Census Bureau, NR216.02(3).
☐ Municipal separate storm sewer systems serving > 10,000.

8. Has the affect of downstream properties been considered?

X No. A hydraulic analysis will be completed during the project's design phase and appropriate coordination will be undertaken at that time.
☐ Yes.

9. Are there any property acquisitions for stormwater management purposes?

X No - There are no property acquisitions required for stormwater management purposes.

Although stormwater facilities and specific locations will be determined in a future engineering phase, there should be sufficient land available adjacent to the improvements to construct such facilities within highway right-of-way.

☐ Yes - Complete the following.

☐ Safety measures, such as fencing, flooding, are <u>not</u> needed for potential conflicts with existing and expected surrounding land use.
☐ Safety measures are needed for potential conflicts with existing and expected surrounding land use. Describe proposed safety measures.

AIR QUALITY IMPACT EVALUATION

DT2072 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

Carbon Monoxide

1. Is this project exempt from air quality analysis under Wisconsin Administrative Code – NR 411?

Based on preliminary traffic information provided by SEWRPC (page 23), the new roadway segment for the Preferred Alternative (CTH K to Five Mile Road) would not meet NR 411 exemptions (see below). The modified roadway segment (Five Mile Road to Oakwood Road) would meet the exemptions (see below).

X No – NR 411 exemptions do not apply

The peak hour volume on the new roadway segment for the Preferred Alternative (Railroad Corridor) would have more than 1,200 vehicles in the peak hour in year 2025 (10 years after construction).

X Yes – NR 411 exemption(s) apply – Identify exemption(s) and explain why project is exempt.

The peak hour volume on the modified roadway segment for the Preferred Alternative (Railroad Corridor) would not have an increase of more than 1,200 vehicles between 2015 (construction year) and 2025 (construction + 10 years). Also, the shift in the nearest roadway edge toward any potential receptor located within a new or modified intersection boundary would be less than 12 feet.

2. An air quality analysis was required

☐ No

X Yes – Identify the air quality modeling technique or program used to perform the analysis. Attach the Maximum Projected Carbon Monoxide (CO) Concentrations worksheet to this evaluation to illustrate the results.

Based on preliminary traffic information provided by SEWRPC, an air quality analysis is needed to determine whether projected CO concentrations for the new roadway segment would be above the National Ambient Air Quality Standards (NAAQS). An air quality analysis will be done when updated traffic information is available from WisDOT. WisDOT's initial traffic forecasts were for the existing STH 38 corridor only and did not take into account a new roadway segment. Updated traffic forecasts have been requested and the air quality analysis will be done prior to approval of the final environmental document. At this time, based on experience with other similar projects, no air quality impacts are anticipated.

3. If an air quality analysis was performed, will a Construction Permit be required to address air quality before the project may proceed

See item 2. At this time it is anticipated that a Construction Permit will not be required.

☐ No
☐ Letter of concurrence from DNR Bureau of Air Management requested. (See attached request letter – Exhibit)
☐ Letter of concurrence received from DNR Bureau of Air Management. (See attached Exhibit)
☐ Yes – Indicate:

Date Permit Requested Or Date of Permit

Ozone

4. Is the project located in a county which is designated non-attainment or maintenance for ozone?

☐ No
X Yes – One of the following boxes must be checked

X This project is included in the approved Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) endorsed by the region's Metropolitan Planning Organization (MPO). The TIP was found to conform by the Federal Highway Administration and the Federal Transit Administration. Provide RTP Name, TIP name, TIP number and conformity finding date(s).

RTP Name: A Regional Transportation System Plan for Southeastern Wisconsin: 2020	**TIP Name**: 20055-2007 Transportation Improvement Program for Southeastern Wisconsin
MPO Name: Southeastern Wisconsin Regional Planning Commission (SEWRPC)	**TIP Number**: 18 The proposed STH 38 improvements are included in the 2005-2007 TIP under general TIP #18 that covers preliminary engineering for the rehabilitation of State Trunk highways within Southeastern Wisconsin. WisDOT has requested that SEWRPC include the STH 38 Corridor Study as a specific highway preservation project in the next TIP amendment.
Conformity Finding Date(s): January 14, 2005	

☐ This project is located outside of a Metropolitan Planning Organization's boundaries and has received a positive conformity determination per the rural conformity section of the WisDOT/WDNR Memorandum of Agreement regarding determination of conformity. Provide conformity finding date.
☐ This project is located outside of a Metropolitan Planning Organization's boundaries, it is a project comparable to one of those described in 40 CFR 93.126 and is included in the State Transportation Improvement Program (STIP).
☐ This project is exempt per 40 93.127
☐ Other—Describe

CONSTRUCTION STAGE SOUND QUALITY IMPACT EVALUATION

DT2074 2005

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Identify and describe residences, schools, libraries, or other noise sensitive areas near the proposed action and which will be in use during construction of the proposed action. Include the number of persons potentially affected.

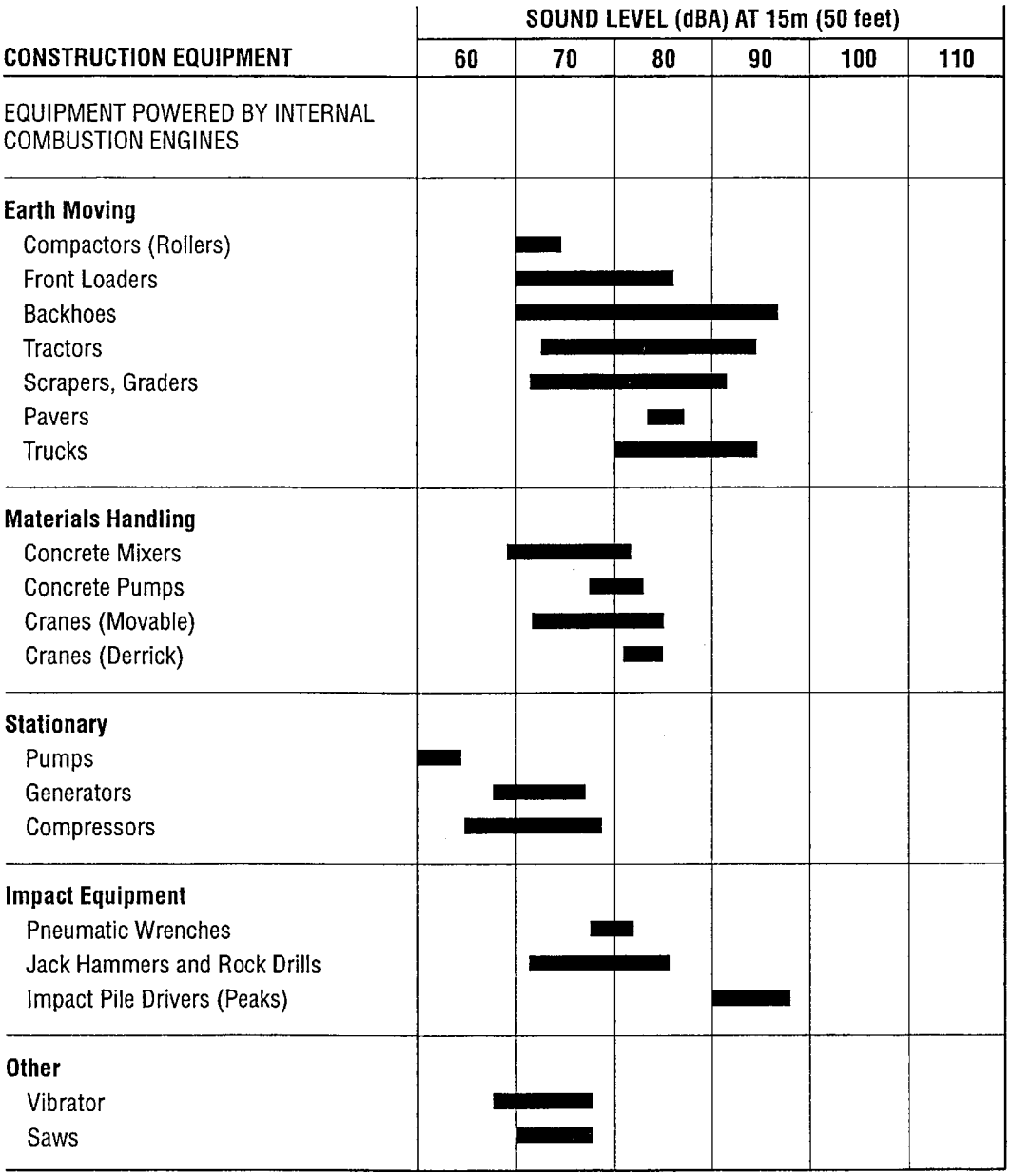
One church and approximately 50-60 residences are located adjacent to the Preferred Alternative. Assuming 2-4 residents per home, it is estimated that 100 and 240 people would be adjacent to the proposed action. No schools, libraries or other noise sensitive receptors are located near the Preferred Alternative.

2. Describe the types of construction equipment to be used on the project. Discuss the expected severity of noise levels including the frequency and duration of any anticipated high noise levels.

The noise generated by construction equipment will vary greatly, depending on equipment type/model/make, duration of operation and specific type of work effort. Typical noise levels may occur in the 67 to 107dBA range at a distance of 50 feet (15.2 meters). The figure on the following page shows typical noise levels for a variety of construction equipment. Adverse effects related to construction noise are anticipated to be of a localized, temporary, and transient nature.

3. Describe the construction stage noise abatement measures to minimize identified adverse noise effects.

WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply.



Construction Equipment Sound Levels

Source: U.S. Report to the President and Congress on Noise, February, 1972

TRAFFIC NOISE IMPACT EVALUATION

DT2092 2005

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

Need for Noise Analysis

1. Is the proposed action considered a Type I project? (A type I project is defined as a project that involves construction of a roadway on new location or the physical alteration of an existing highway which substantially changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.)

☐ No – Complete only form DT2074, Construction Stage Sound Quality Impact Evaluation.
X Yes – Complete form DT2074, Construction Stage Sound Quality Impact Evaluation and the rest of this sheet.

Traffic Data

2. Indicate whether traffic volumes for sound prediction are different from the Design Hourly Volume (DHV) on DT2094, Environmental Evaluation of Facilities Development Action, Traffic Summary Basic Sheet.

X No
☐ Yes – Indicate volumes and explain why they were used.
Automobiles: Vehicles per hour
Trucks: Vehicles per hour or % of AADT

3. Identify and describe the noise analysis technique or program used to identify existing and future sound levels. (See attached receptor location map). A receptor location map shall be included with this document.

Existing and future traffic noise levels were evaluated using the FHWA Traffic Noise Model (TNM) version 2.5. Noise receptors are shown on Exhibits 2 and 3.

4. Identify sensitive receptors, e.g., schools, libraries, hospitals, residences, etc. potentially affected by traffic sound. (See attached receptor location map).

Noise receptors were selected at 6 locations in the project area to represent the homes and businesses adjacent to the Preferred Alternative. The noise analysis indicates that 4 of the 6 representative receptors would have noise impacts (levels that approach or exceed the criteria presented in TRANS 405).

5. If this proposal is implemented will future sound levels produce a noise impact?

☐ No
X Yes, the impact will occur because
  X The Noise Abatement Criteria (NAC) is approached (1 dBA less than the NAC) or exceeded.
  ☐ Existing sound levels will increase by 15 dBA or more.

The results of the analysis are presented in the noise impact summary table on the following page.

Noise Impact Summary

Noise Receptors (See Exhibit 2 and 3)	NAC[1] (dBA)	Existing Noise (dBA)	Future Noise Year 2035 (dBA)	Difference Between Existing and Future Noise (dBA)	Difference Between Future Noise and NAC (dBA)	Noise Impact Status[2]
R1 - Residence - STH 38 (approximately 700 feet south) of Hoods Creek Road	67	59	68	+9	+1	Impact
R2 - Residence -STH 38 (approximately 1/5 mile) south of Brook Road	67	59	60	+1	-7	No impact
R4 - Residence **-**5 Mile Road (approximately 1/3 mile) from Nicholson Road	67	50	56	+6	-11	No impact
R5 - Residence - 6 1/2 Mile Road and STH 38	67	66	73	+7	+6	Impact
R8 - Residence - North side of Caddy Lane and east of STH 38	67	65	71	+6	+4	Impact
R9 - Church - North of Elm Road on east side of STH 38	67	60	66	+6	-1	Impact

Notes:
1. The Noise Abatement Criterion (NAC) is 67 dBA for residential development and 72 dBA for commercial development. The NAC levels are based on outdoor noise at first row and first floor noise receivers.
2. Noise impacts occur when future noise "approaches or exceeds" the NAC for a given land use or when future noise exceeds existing noise by 15 dBA or more. Noise approaching the NAC is defined as one decibel less than the NAC. Thus, the noise impact level is 66 dBA for residential development and 71 dBA for commercial development.

6. Will traffic noise abatement measures be implemented?

☐ Not applicable – Traffic noise impacts will not occur.
X No – Traffic noise abatement is not reasonable or feasible (explain why). In areas currently undeveloped, local units of government shall be notified of predicted sound levels for land use planning purposes. A copy of the Noise Notification is provided in Appendix C.

☐ Yes – Traffic noise abatement has been determined to be feasible and reasonable. Describe any traffic noise abatement measures proposed to be implemented. Explain how it will be determined whether or not those measures will be implemented.

Noise abatement measures considered included traffic control measures, sound-proofing structures, noise berms or barriers, and buffer strips. The techniques considered for the noise-impacted receptors did not meet abatement criteria and were therefore found to be impractical.

Traffic control-measures required to reduce noise levels would prohibit certain types of vehicles, such as large trucks, from using the highway. Because the highway is classified a State Trunk Highway, trucks cannot be prohibited. Retrofitting existing structures with sound barrier insulation was also considered to lessen noise impacts. This option was ruled out because it would not address outdoor noise levels. Outdoor noise levels are used to assess noise impacts. Sound proofing is effective for only large public buildings with little or no outside noise. Construction of noise barriers was considered at each of the locations where receptors exceeded the NAC. TRANS 405 defines feasibility for a noise barrier as the ability to achieve an 8 dB reduction in the noise level at a reasonable cost per residence. Reasonableness is defined as not to exceed $30,000. This criterion is typically met only in urban areas where many residences are located close together on small lots. Noise barriers in a rural area, where houses are separated by several hundred feet and where drive ways and crossroads would diminish the noise barrier's effectiveness, are not a feasible mitigation technique.

UNIQUE AREA IMPACT EVALUATION

DT2077 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Property Name	**2. Location**
Oak Leaf Trail	Root River corridor just north of Racine/Milwaukee County line
3. Ownership or Administration	**4. Use**
Milwaukee County	Multi-use recreational trail

5. Type

☐ Public Park ☐ Recreational lands ☐ Wildlife Refuge ☐ Waterfowl Refuge ☐ Historic Site

X Other – Identify

Multi-use recreational trail located on county-owned multiple-use land along Root River corridor

6. Indicate how the land or improvements on the property were funded.

X No funds from any acts were used for this property.

☐ LAWCON (LWCF)

☐ Dingell-Johnson (D/J funds)

☐ Pittman-Robertson (P/R funds)

(Lands purchased with D/J or P/R funds are treated similarly to those using LAWCON funds.)

7. Do FHWA requirements for section 4(f) apply to the project's use of the unique property?

☐ No - Project is not federally funded

☐ No - Property is not on or eligible for the National Register of Historic Places.

☐ No - Other – Explain

X Yes - Indicate which of the Programmatic 4(f) Evaluation applies.

☐ Historic Bridge	X Park minor involvement	☐ Historic site minor involvement
☐ Independent bikeway or walkway	☐ Great River Road	

The Programmatic Section 4(f) evaluation is included in Appendix D.

8. Describe the significance of the unique property. For historic and archeological sites, quote or summarize the statement of significance from the Determination of Eligibility. For national landmarks, natural or scientific areas, etc., state registry listing. For other unique areas, include or attach statements of significance of officials having jurisdiction.

Land along the Root River floodplain in Milwaukee County (and a parcel in Racine County) is owned by Milwaukee County and according to the Milwaukee County Parks Department is used for flood control, natural resource preservation, passive/active recreation and provides links to other recreational facilities in Milwaukee County. A multi-use paved recreational trail that parallels the Root River was constructed in late 2005 on the county-owned land in Milwaukee County.

The trail intersects STH 38 on the east side of the road and extends to the east. Future plans call for extending the trail to the west side of STH 38 but the extension across STH 38 to the west is not programmed in Milwaukee County Park System's 2007-2012 Capital Improvement budget. See February 2006 letter from Milwaukee County Parks Department in Appendix A.

9. Describe the proposed project's effects on this unique property.

The preferred alternative in the project section where the county-owned land/trail is located is to widen existing STH 38 to a 4-lane facility. Widening west is proposed to minimize impacts to existing development on the east side of STH 38.

Approximately 2.3 acres (0.9 ha) of new right-of-way would be required from the county-owned land on the west side of STH 38 for the new 4-lane roadway and 0.6 acres (0.2 ha) from the east side of existing STH 38. Reconstruction of the existing roadway that will be incorporated into the future northbound roadway will likely require minor grading at the trail location to construct the new transitional urban/rural roadway cross section.

a. Describe any effects on or uses of land from the property.

"Use of land from" includes actual use (right of way acquisition, easements, etc.) or constructive use ("substantially impairs any of the site's vital functions"). For historic and archeological sites, give the results or status of Section 106 coordination. For other unique areas, include or attach statements from officials having jurisdiction over the property that discusses the project effects on the property. **(A map, sketch, plan, or other graphic which clearly illustrates use of the property and the project's use and effects on the property must be included.)**

See item 9. The preferred alternative will not change the use or function of the existing trail east of STH 38. Any future trail extension west of the new 4-lane roadway would require crossing STH 38. See **Exhibit 7**.

b. Discuss the following alternatives and describe whether they are feasible and prudent.

i) Do nothing alternative.

The do nothing alternative is not a viable alternative for addressing key purpose and need factors (future traffic demand and safety concerns). See Purpose and Need discussion for more information.

ii) Improvement without using the 4(f) lands.

Reconstructing the existing 2-lane roadway without capacity improvements would avoid right-of-way acquisition from the county-owned land and would not have any effect on the existing trail east of STH 38 or a future extension west of STH 38. However, due to the need for additional traffic capacity in the STH 38 corridor, it is not prudent to reconstruct the existing highway as a 2-lane roadway.

iii) Alternatives on new location.

Because the county-owned land extends on both sides of existing STH 38 along the Root River corridor and because the existing trail and any future extension west of STH 38 would also run along the Root River corridor, it is not possible to shift the location of STH 38 such that it would avoid crossing the county-owned land and trail.

10. Indicate which measures would minimize adverse effects or enhance beneficial effects.

☐ Replacement of lands used with lands of reasonably equivalent usefulness and location, and of at least comparable value.
☐ Replacement of facilities impacted by the project including sidewalks, paths, lights, trees, and other facilities.
X Restoration and landscaping of disturbed areas.
X Incorporation of design features and habitat features where necessary to reduce or minimize impacts to the section 4(f) property.

X Payment of the fair market value of the land and improvement taken or improvements to the remaining 4(f) site equal to the fair market value of the land and improvements taken.
X Such additional or alternative mitigation measures as may be determined necessary based on consultation with officials having jurisdiction over the 4(f) property – See below
☐ Property is a historic property or an archeological site. The conditions or mitigation stipulations are listed or summarized below.
☐ Other – Describe.

Preliminary coordination with the Milwaukee County Parks Department indicates they would like to work with WisDOT in a future design phase to consider 1) relocating the trail approximately 200 feet (61 meters) south and rebuilding the trail under the STH 38 structure over the Root River to provide a grade-separated trail crossing; 2) providing a safe at-grade crossing of STH 38; or 3) provide both types of crossings.

11. Briefly summarize the results of coordination with other agencies that were consulted about the project and its effects on the unique property.

(For historic and archeological sites, include the signed Memorandum of Agreement and letter from the Advisory Council on Historic Preservation. For other unique areas, attach correspondence from officials having jurisdiction over the 4(f) land that illustrates concurrence with impacts and mitigation measures.)

The study team met with the Milwaukee County Parks Department in January 2006 and received a letter in February 2006 (see Appendix A). At the meeting the County indicated that they would like the speed limit to remain 45 miles per hour (the current speed limit at this location) and would like to consider re-routing the trail under the STH 38 Root River bridges if feasible.

The study team contacted the National Park Service, DNR/Madison and DNR/SE Region to determine if LAWCON funds were used for land acquisition or trail construction. According to DNR/SE Region no LAWCON funds were used in the purchase of the portions of the Root River corridor adjacent to STH 38 or the multi-use trail. See Appendix A.

HAZARDOUS SUBSTANCES OR UNDERGROUND STORAGE TANKS (USTs)

DT2079 10/2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Briefly describe the results of the Phase 1 hazardous materials assessment for this alternative. Do not use property identifiers (owner name, address or business name).

A Phase I assessment has been conducted for the entire project corridor. None of the sites listed in the Phase I hazardous materials assessment report are within the Preferred Alternative right-of-way.

One property owner, interviewed for the Phase I hazardous materials assessment indicated that a gas station had been located in the southeast quadrant of Seven Mile Road and STH 38. Other than anecdotal evidence, there is no information available regarding this site. This area may require special excavation and handling during the construction phase. The source of contamination, based on historical accounts, is likely petroleum-related products.

2. Which contaminants are known or suspected to be affecting sites on this alternative?

☐ No	X Yes, how many sites **1**	Petroleum
X No	☐ Yes, how many sites	Hazardous Waste
X No	☐ Yes, how many sites	Closed Landfill Sites
X No	☐ Yes, how many sites	Open Landfill Sites
X No	☐ Yes, how many sites	Farm/Agricultural/Other Dump Sites
X No	☐ Yes, how many sites	Other

3. How many sites require further investigation?

None

Were any sites not included in the Phase 1 assessment?

X No
☐ Yes How many?

For the Preferred Alternative

4. Describe the results of any additional investigation (include number of sites investigated, level of investigation, and results for each site).

Investigations if needed will require direct push technology (e.g. Geoprobe) with collection of soil and groundwater grab samples at each site. Based on preliminary reviews the contaminant of concern for nearly all sites is petroleum product. There is the potential for metals to be in the groundwater as a result of former leaded gasoline activities.

5. Describe measures taken in selection of this alternative to avoid hazardous materials contamination for this project, for example: changes in location, changes in design, or relocation of utilities.

Based on the types and locations of potential environmentally contaminated sites, no specific measures were deemed necessary to avoid such sites with the Preferred Alternative.

6. For areas where contamination cannot be avoided by the proposed alternative, describe the remediation measures to be incorporated into the design, (e.g., waste handling plan, remediation of contamination, design changes to minimize disturbances).

The WisDOT Region Office will work with all concerned parties to insure that the disposition of any petroleum contamination is resolved to the satisfaction of the Wisconsin DNR, WisDOT BEES, and FHWA before acquisition of any questionable site, and before advertising the project for letting. Non-petroleum sites will be handled on a case-by-case basis with detailed documentation and coordination with FHWA as needed.

AESTHETICS IMPACT EVALUATION

DT2062 2003

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. Identify and briefly describe the visual character of the landscape. Include elements in the viewshed such as landforms, waterbodies, vegetation and human developments.

The project area is generally level with some rolling hills associated with small stream corridors and drainage ditches. The landscape is relatively uniform and consists of agricultural land interspersed upland forest and scattered rural residences and farmsteads. Existing STH 38 crosses the Root River and Husher Creek corridors that provide a view of open space, wetland and floodplain.

The unincorporated community of Husher has about 12 closely spaced homes and businesses that offer the appearance of a small crossroads community.

2. Indicate the visual quality of the viewshed and identify landscape elements that would be visually sensitive.

The viewshed is generally rural with some suburban elements in the far north and south ends of the corridor. Caledonia residents and officials identified the portion of the existing STH 38 between Six Mile Road and the project's southern terminus at CTH K as visually sensitive and expressed interest in maintaining the rural character of the STH 38 corridor south of Six Mile Road. Existing STH 38 has several horizontal and vertical curves and narrow shoulders that enhance the rural appearance of the corridor.

3. Identify the viewers who will have a view of the improved transportation facility and those with a view from the improved transportation facility. Indicate the relative numbers (low, medium, high) of each group.

Area residents and workers would view the improved STH 38 roadway. The view of the roadway could consist of two types of views: approximately 4.5 miles (7 km) where the existing roadway is widened to four lanes on its current alignment and approximately 4 miles (6.4 km) where STH 38 would be on new alignment. Approximately 2 miles (3 km) of the new alignment would be adjacent to the existing Union Pacific Railroad and approximately one mile (1.6 km) would be adjacent to Five Mile Road. The relative number of people viewing the new highway is considered low to medium.

Drivers on the new STH 38 roadway would view the improved facility as well as the surrounding viewshed. The 2 mile (3 km) segment adjacent to the Union Pacific Railroad would provide views from the road of an area not generally seen except by those who own and/or farm the adjacent land. The railroad is on a berm in this area and would partially block views to the east. The viewshed in this area would not be substantially different than other existing viewsheds in the corridor.

Design year traffic volumes of 14,000 to 20,000 vehicles per day are higher than the population living adjacent to the STH 38 corridor, as a result more people will have a view from the roadway than of the roadway. The relative number of people with views from the new highway is considered medium.

4. Indicate the relative time of day (morning, afternoon, evening, night) and the approximate amount of viewing time each viewer group would have each day.

Residents would view the improved roadway during daylight hours. Motorists on STH 38 would have short duration views of the surrounding area as they pass through the corridor. In general, peak use of the roadway would occur during the A.M. and P.M. peaks

5. Describe whether and how the project would affect the visual character of the landscape.

The proposed action would increase the visual presence of STH 38 where is it is widened from two lanes to four lanes on its current alignment. It would introduce a new four-lane roadway into an area where there is either no roadway or a narrow two-lane local road. In these areas STH 38 would become a prominent feature of the viewshed for adjacent residents.

6. Indicate the effects the project would have on the viewer groups.

Although four-lane roadway in rural areas are not uncommon, the four-lane STH 38 may reduce the rural setting of the project area by making the roadway a more prominent feature of the viewshed for area residents. This change would be more pronounced in the segment where STH 38 will be on new alignment.

Motorists on STH 38 would continue to view the rural viewsheds in the corridor, although the specific viewsheds would change in areas where STH 38 is on new alignment. The Union Pacific Railroad may partially block views east of the new roadway.

7. Identify and discuss reasonable mitigation measures to avoid or minimize adverse visual effects or enhance positive aesthetic effects of the project.

The off alignment segments of the Preferred Alternative were routed along existing roadways and the railroad corridor to the extent practicable to minimize land severance and to follow the railroad corridor that already has an impact on the landscape and viewshed. At this time, no aesthetic mitigation measures have been identified other than normal landscaping practices for new highways.

COASTAL ZONE IMPACT EVALUATION

DT2073 2004

Alternative	Preferred
Railroad Corridor	X Yes ☐ No

Portion of project this sheet is evaluating if different from first Basic Sheet

1. The project is located in the following county or counties.

If project is in any of the counties denoted with an asterisk (*) form DT2076, Stormwater Impact Evaluation, may need to be completed to satisfy Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requirements if the project's stormwater discharges affect the Great Lakes Watershed.)

☐ Ashland	☐ Bayfield	☐ Brown	☐ Door	☐ Douglas	☐ Iron
☐ Kenosha	☐ Kewaunee	☐ Manitowoc	☐ Marinette	X Milwaukee	☐ Oconto
☐ Ozaukee	X Racine	☐ Sheboygan			
☐* Florence	☐* Fond du Lac	☐* Forest	☐* Menominee	☐* Outagamie	☐* Shawano
☐* Vilas	☐* Washington	☐* Waukesha	☐* Winnebago		

☐ None of the above – If project's effects do not extend into one of the counties listed above, this worksheet is complete.

2. The project affects a Special Coastal Area as indicated in the Coastal Zone Management (CZM) Plan

☐ Yes

Check all that apply and complete the rest of this worksheet as appropriate. (If the proposal is federally funded and uses land from a publicly owned park, recreation area, wildlife or waterfowl refuge or significant historic site, Section 4(f) may apply and form DT2077, Unique Area Impact Evaluation, will need to be completed.)

☐ Park	☐ Boat Landing	☐ Beach	☐ Historic Property
☐ Archaeological Site	☐ Harbor	☐ Fishery Area	☐ Hunting Area

X No – If project's effects do not extend into or affect any of the CZM Areas of Special Concern, this worksheet is complete.

3. Describe the project's effects on the CZM Special Coastal Area.

No CZM Special Coastal Area will be affected.

4. Briefly discuss the results of coordination with any other agency or local unit of government regarding their concerns and mitigation proposals for the project's effects on the CZM Special Coastal Area.

Not applicable.

APPENDIX A
Agency Correspondence

APPENDIX B
Mobile Source Air Toxics

APPENDIX C
Noise Notification

APPENDIX D
Programmatic
Section 4(f) Evaluation